



**HYDROMET**

## INDIAN OCEAN COMMISSION

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**« BUILDING REGIONAL RESILIENCE THROUGH STRENGTHENED METEOROLOGICAL, HYDROLOGICAL AND CLIMATE SERVICES IN THE INDIAN OCEAN COMMISSION MEMBER COUNTRIES - (HYDROMET) »**

### BIDDING DOCUMENTS

for

## Procurement of Five (5) Forecaster Workstations

- Lot 1 : Procurement of Forecaster Workstations for Comoros, Mauritius, Seychelles and the Regional Training Center
- Lot 2 : Procurement of Forecaster Workstation for Madagascar including open source and free software solutions

**IPC No:** *COI/HYDROMET/AOI/2025/04*

**Project:** HYDROMET

**Purchaser:** Indian Ocean Commission (IOC)

**Country:** *Comoros, Madagascar, Mauritius, Seychelles*

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# **PART 1 – Bidding Procedures**

# Section I. Instructions to Bidders

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# Section I. Instructions to Bidders

## A. General

- 1. Scope of Bid**

  - 1.1 In connection with the Invitation for Bids, **specified in the Bid Data Sheet (BDS)**, the Purchaser, **as specified in the BDS**, issues these Bidding Documents for the Procurement of Goods and Related Services incidental thereto as specified in Section VII, Schedule of Requirements. The name, identification and number of lots (contracts) of this International Procurement Competition (IPC) are **specified in the BDS**.
  - 1.2 Throughout these Bidding Documents:

    - (a) The term “in writing” means communicated in written form (e.g. by mail, e-mail, fax, telex) with proof of receipt;
    - (b) If the context so requires, “singular” means “plural” and vice versa; and
    - (c) “Day” means calendar day.
- 2. Source of Funds**

  - 2.1 The Purchaser **specified in the BDS** has applied for or received financing (hereinafter called “funds”) from the Agence Française de Développement (hereinafter called “the AFD”), toward the project named **in BDS**. The Purchaser intends to apply a portion of the funds to eligible payments under the contract for which these Bidding Documents are issued.
- 3. Prohibited Practices**

  - 3.1 The AFD requires compliance with its policy regarding prohibited practices as set forth in Section VI.
  - 3.2 In further pursuance of this policy, Bidders shall permit and shall cause its agents (where declared or not), sub-contractors, sub-consultants, service providers or suppliers and to permit the AFD to inspect all accounts, records and other documents relating to the submission of the application, bid submission, and contract performance (in the case of award), and to have them audited by auditors appointed by the AFD.
- 4. Eligible Bidders**

  - 4.1 A Bidder may be a firm that is a private entity, a state-owned entity- subject to ITB 4.3- or any combination of such entities in the form of a joint venture (JV) under an existing agreement or with the intent to enter into such an agreement supported by a letter of intent. In the case of a joint venture, all members shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms. The JV shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the members of the JV during the bidding process and, in the event the JV is awarded the Contract, during contract execution.
  - 4.2 A Bidder shall not have a conflict of interest. Any Bidder found to have a conflict of interest shall be disqualified. A Bidder may be considered to

have a conflict of interest for the purpose of this bidding process, if the Bidder:

- (a) Directly or indirectly controls, is controlled by or is under common control with another Bidder; or
- (b) Receives or has received any direct or indirect subsidy from another Bidder; or
- (c) Has the same legal representative as another Bidder; or
- (d) Has a relationship with another Bidder, directly or through common third parties, that puts it in a position to influence the bid of another Bidder, or influence the decisions of the Purchaser regarding this bidding process; or
- (e) Participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all Bids in which such Bidder is involved. However, this does not limit the inclusion of the same subcontractor in more than one bid; or
- (f) Any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the goods that are the subject of the bid; or
- (g) Any of its affiliates has been hired (or is proposed to be hired) by the Purchaser for the Contract implementation; or
- (h) Has a close business or family relationship with a professional staff of the Purchaser (or of the project implementing agency, or of a recipient of a part of the funds) who: (i) are directly or indirectly involved in the preparation of the bidding documents or specifications of the contract, and/or the bid evaluation process of such contract; or (ii) would be involved in the implementation or supervision of such contract unless the conflict stemming from such relationship has been resolved in a manner acceptable to the AFD throughout the procurement process and execution of the contract.

4.3 The AFD's eligibility criteria to bid are described in Section V, Eligibility criteria.

4.4 A Bidder shall not be under suspension from bidding by the Purchaser as the result of the execution of a Bid–Securing Declaration.

4.5 A Bidder shall provide such evidence of eligibility satisfactory to the Purchaser, as the Purchaser shall reasonably request.

**5. Eligible Goods and Related Services**

5.1 All the Goods and Related Services to be supplied under the Contract and financed by the AFD may have their origin in any country in accordance with Section V, Eligibility Criteria.

- 5.2 For purposes of this Clause, the term “goods” includes commodities, raw material, machinery, equipment, and industrial plants; and “related services” includes services such as insurance, installation, training, and initial maintenance.
- 5.3 The term “origin” means the country where the goods have been mined, grown, cultivated, produced, manufactured or processed; or, through manufacture, processing, or assembly, another commercially recognized article results that differs substantially in its basic characteristics from its components.

## **B. Contents of Bidding Documents**

### **6. Sections of Bidding Documents**

- 6.1 The Bidding Documents consist of Parts 1, 2, and 3, which include all the Sections indicated below, and should be read in conjunction with any Addenda issued in accordance with ITB 8.

#### **PART 1 - Bidding Procedures**

- Section I. Instructions to Bidders (ITB);
- Section II. Bidding Data Sheet (BDS);
- Section III. Evaluation and Qualification Criteria;
- Section IV. Bidding Forms;
- Section V. Eligibility Criteria;
- Section VI. AFD Policy - Prohibited Practices and Environmental and Social Responsibility;

#### **PART 2 - Supply Requirements**

- Section VII. Schedule of Requirements;

#### **PART 3 - Contract**

- Section VIII. General Conditions of Contract (GCC);
- Section IX. Special Conditions of Contract (SCC);
- Section X. Contract Forms.

- 6.2 The Invitation for Bids issued by the Purchaser is not part of the Bidding Documents.
- 6.3 Unless obtained directly from the Purchaser, the Purchaser is not responsible for the completeness of the Bidding Documents, responses to requests for clarification or Addenda to the Bidding Documents in accordance with ITB 8. In case of any contradiction, documents obtained directly from the Purchaser shall prevail.
- 6.4 The Bidder is expected to examine all instructions, forms, terms, and specifications in the Bidding Documents and to furnish with its Bid all information or documentation as is required by the Bidding Documents.



- 7. Clarification of Bidding Documents** 7.1 A Bidder requiring any clarification of the Bidding Documents shall contact the Purchaser in writing at the Purchaser's address **specified in the BDS**. The Purchaser will respond in writing to any request for clarification, provided that such request is received no later than 14 (fourteen) days prior to the deadline for submission of bids. The Purchaser shall forward copies of its response to all Bidders who have acquired the Bidding Documents in accordance with ITB 6.3, including a description of the inquiry but without identifying its source. If so **specified in the BDS**, the Purchaser shall also promptly publish its response at the web page **identified in the BDS**. Should the clarification result in changes to the essential elements of the Bidding Documents, the Purchaser shall amend the Bidding Documents following the procedure under ITB 8 and ITB 22.2.
- 8. Amendment of Bidding Document** 8.1 At any time prior to the deadline for submission of bids, the Purchaser may amend the Bidding Documents by issuing addenda.
- 8.2 Any addendum issued shall be part of the Bidding Documents and shall be communicated in writing to all who have obtained the Bidding Documents from the Purchaser in accordance with ITB 6.3. The Purchaser shall also promptly publish the addendum on the Purchaser's web page in accordance with ITB 7.1.
- 8.3 To give Bidders reasonable time in which to take an addendum into account in preparing their bids, the Purchaser may, at its discretion, extend the deadline for the submission of bids, pursuant to ITB 22.2.

### **C. Preparation of Bids**

- 9. Cost of Bidding** 9.1 The Bidder shall bear all costs associated with the preparation and submission of its bid, and the Purchaser shall not be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.
- 10. Language of Bid** 10.1 The Bid, as well as all correspondence and documents relating to the Bid exchanged by the Bidder and the Purchaser, shall be written in the language **specified in the BDS**. Supporting documents and printed literature that are part of the Bid may be in another language provided they are accompanied by an accurate translation of the relevant passages into the language **specified in the BDS**, in which case, for purposes of interpretation of the Bid, such translation shall govern.
- 11. Documents Comprising the Bid** 11.1 The Bid shall comprise the following:
- (a) Bid submission Form and the Bidding Forms in accordance with ITB 12;
  - (b) Completed schedules, in accordance with ITB 12 and 14;
  - (c) Bid Security or Bid-Securing Declaration, in accordance with ITB 19.1;

- (d) Alternative bids, if permissible, in accordance with ITB 13;
- (e) Written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB 20.2;
- (f) Statement of Integrity, Eligibility and Environmental and Social Responsibility duly signed, in accordance with ITB 12;
- (g) Documentary evidence in accordance with ITB 17 establishing the Bidder's qualifications to perform the contract if its Bid is accepted;
- (h) Documentary evidence in accordance with ITB 17 establishing the Bidder's eligibility to bid;
- (i) Documentary evidence in accordance with ITB 16, that the Goods and Related Services to be supplied by the Bidder are of eligible origin;
- (j) Documentary evidence in accordance with ITB 16 and 29, that the Goods and Related Services conform to the Bidding Documents;
- (k) Any other document **required in the BDS**.

11.2 In addition to the requirements under ITB 11.1, bids submitted by a JV shall include a copy of the Joint Venture Agreement entered into by all members. Alternatively, a letter of intent to execute a Joint Venture Agreement in the event of a successful bid shall be signed by all members and submitted with the bid, together with a copy of the proposed Agreement.

11.3 The Bidder shall furnish in the Bid Submission Form information on commissions and gratuities, if any, paid or to be paid to agents or any other party relating to this Bid.

**12. Bid Submission Form, Bidding Forms and Statement of Integrity and Price Schedules**

12.1 The Bid Submission Form, the Bidding Forms and the Statement of Integrity and Price Schedules shall be prepared using the relevant forms furnished in Section IV, Bidding Forms. The forms must be completed without any alterations to the text, and no substitutes shall be accepted except as provided under ITB 20.4. All blank spaces shall be filled in with the information requested.

**13. Alternative Bids**

13.1. Unless otherwise **specified in the BDS**, alternative bids shall not be considered.

**14. Bid Prices and Discounts**

14.1 The prices and discounts quoted by the Bidder in the Bid Submission Form and in the Price Schedules shall conform to the requirements specified below.

14.2 All lots (contracts) and items must be listed and priced separately in the Price Schedules.

- 14.3 The price to be quoted in the Bid Submission Form shall be the total price of the bid, excluding any discounts offered.
- 14.4 The Bidder shall quote any discounts and indicate the methodology for their application in the Bid Submission Form.
- 14.5 Prices quoted by the Bidder shall be fixed during the Bidder's performance of the Contract and not subject to variation on any account, **unless otherwise specified in the BDS**. A bid submitted with an adjustable price quotation shall be treated as nonresponsive and shall be rejected, pursuant to ITB 29. However, if in accordance with the BDS, prices quoted by the Bidder shall be subject to adjustment during the performance of the Contract, a bid submitted with a fixed price quotation shall not be rejected, but the price adjustment shall be treated as zero.
- 14.6 If so specified in ITB 1.1, bids are being invited for individual lots (contracts) or for any combination of lots (packages). Unless otherwise **specified in the BDS**, prices quoted shall correspond to 100 % of the items specified for each lot and to 100% of the quantities specified for each item of a lot. Bidders wishing to offer discounts for the award of more than one Contract shall specify in their bid the price reductions applicable to each package, or alternatively, to individual Contracts within the package. Discounts shall be submitted in accordance with ITB 14.4 provided the bids for all lots (contracts) are opened at the same time.
- 14.7 The term CIP, DDP and other similar terms shall be governed by the rules prescribed in the current edition of Incoterms, published by The International Chamber of Commerce, **as specified in the BDS**.
- 14.8 Prices shall be quoted as specified in each Price Schedule included in Section IV, Bidding Forms. The disaggregation of price components is required solely for the purpose of facilitating the comparison of bids by the Purchaser. In quoting prices, the Bidder shall be free to use transportation through carriers registered in any eligible country, in accordance with Section V, Eligibility Criteria. Similarly, the Bidder may obtain insurance services from any eligible country in accordance with Section V, Eligibility Criteria. Prices shall be entered in the following manner:
- (a) For Goods manufactured in the Purchaser's Country:
- (i) The price of the Goods quoted CIP named place of destination, including all customs duties and sales and other taxes already paid or payable on the components and raw material used in the manufacture or assembly of the Goods; and
- (ii) Any Purchaser's Country sales tax and other taxes which will be payable on the Goods if the contract is awarded to the Bidder.

- (b) For Goods manufactured outside the Purchaser's Country, to be imported:
- (i) The price of the Goods, quoted CIP named place of destination, in the Purchaser's Country, **as specified in the BDS**; and
  - (ii) Any Purchaser's Country sales and other taxes which will be payable on the Goods if the contract is awarded to the Bidder.
- (c) For Goods manufactured outside the Purchaser's Country, already imported:
- (i) The price of the Goods, quoted CIP named place of destination, excluding the custom duties and other import taxes already paid (need to be supported with documentary evidence) or to be paid on the Goods already imported;
  - (ii) All custom duties and other import taxes already paid (need to be supported with documentary evidence) or to be paid on the Goods already imported in the Purchaser's country, payable on the Goods, if the Contract is awarded to the Bidder;
  - (iii) Any Purchaser's Country sales and other taxes which will be payable on the Goods if the contract is awarded to the Bidder; and
- (d) For Related Services specified in Section VII - Schedule of Requirements:
- (i) The price of each item comprising the Related Services (exclusive of any applicable taxes);
  - (ii) All custom duties, sales and other taxes applicable in the Purchaser's country, payable on the Related Services, if the Contract is awarded to the Bidder.

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| <b>15. Currencies of Bid and Payment</b>   | 15.1 | The currency(ies) of the bid and the currency(ies) of payments shall be <b>as specified in the BDS</b> . The Bidder shall quote in the currency of the Purchaser's Country the portion of the bid price that corresponds to expenditures incurred in the currency of the Purchaser's country, unless otherwise <b>specified in the BDS</b> . |
| <b>16. Documents Establishing the Eligibility and Conformity of the Goods and Related Services</b> | 16.1 | To establish the eligibility of the Goods and Related Services in accordance with ITB 5, Bidders shall complete the country of origin declarations in the Price Schedule Forms, included in Section IV, Bidding Forms.   |
|  | 16.2 | To establish the conformity of the Goods and Related Services to the Bidding Documents, the Bidder shall furnish as part of its Bid the  |

documentary evidence that the Goods conform to the technical specifications and standards specified in Section VII, Schedule of Requirements.

- 16.3 The documentary evidence may be in the form of literature, drawings or data, and shall consist of a detailed item by item description of the essential technical and performance characteristics of the Goods and Related Services, demonstrating substantial responsiveness of the Goods and Related Services to the technical specification, and if applicable, a statement of deviations and exceptions to the provisions of the Section VII, Schedule of Requirements.
- 16.4 The Bidder shall also furnish a list giving full particulars, including available sources and current prices of spare parts, special tools, etc., necessary for the proper and continuing functioning of the Goods during the period **specified in the BDS** following commencement of the use of the goods by the Purchaser.
- 16.5 Standards for workmanship, process, material, and equipment, as well as references to brand names or catalogue numbers specified by the Purchaser in the Schedule of Requirements, are intended to be descriptive only and not restrictive. The Bidder may offer other standards of quality, brand names, and/or catalogue numbers, provided that it demonstrates, to the Purchaser's satisfaction, that the substitutions ensure substantial equivalence or are superior to those specified in the Section VII, Schedule of Requirements.

- 17. Documents Establishing the Eligibility and Qualifications of the Bidder**
- 17.1 To establish Bidder's their eligibility in accordance with ITB 4, Bidders shall complete the Bid Submission Form, included in Section IV, Bidding Forms.
- 17.2 The documentary evidence of the Bidder's qualifications to perform the contract if its bid is accepted shall establish to the Purchaser's satisfaction:
- (a) That, if **required in the BDS**, a Bidder that does not manufacture or produce the Goods it offers to supply shall submit the Manufacturer's Authorization using the form included in Section IV, Bidding Forms to demonstrate that it has been duly authorized by the manufacturer or producer of the Goods to supply these Goods in the Purchaser's Country;
  - (b) That, if **required in the BDS**, in case of a Bidder not doing business within the Purchaser's Country, the Bidder is or will be (if awarded the contract) represented by an Agent in the country equipped and able to carry out the Supplier's maintenance, repair and spare parts-stocking obligations prescribed in the Conditions of Contract and/or Technical Specifications; and
  - (c) That the Bidder meets each of the qualification criterion specified in Section III, Evaluation and Qualification Criteria.
- 18. Period of Validity of Bids**
- 18.1 Bids shall remain valid for the period **specified in the BDS** after the bid submission deadline date prescribed by the Purchaser in accordance with ITB 22.1. A bid valid for a shorter period shall be rejected by the Purchaser as nonresponsive.
- 18.2 In exceptional circumstances, prior to the expiration of the bid validity period, the Purchaser may request bidders to extend the period of validity of their bids. The request and the responses shall be made in writing. If a Bid Security is requested in accordance with ITB Clause 19, it shall also be extended for twenty-eight (28) days beyond the deadline of the extended validity period. A Bidder may refuse the request without forfeiting its Bid Security. A Bidder granting the request shall not be required or permitted to modify its bid, except as provided in ITB 18.3.
- 18.3 If the award is delayed by a period exceeding fifty-six (56) days beyond the expiry of the initial bid validity, the Contract price shall be determined as follows:
- (a) In the case of fixed price contracts, the Contract price shall be the bid price adjusted by the factor **specified in the BDS**;
  - (b) In the case of adjustable price contracts, no adjustment shall be made;
  - (c) In any case, bid evaluation shall be based on the bid price without taking into consideration the applicable correction from those indicated above.

**19. Bid Security**

- 19.1 The Bidder shall furnish as part of its bid, either a Bid-Securing Declaration or a bid security, as **specified in the BDS**, in original form and, in the case of a bid security, in the amount and currency **specified in the BDS**.
- 19.2 A Bid Securing Declaration shall use the form included in Section IV, Bidding Forms.
- 19.3 If a bid security is specified pursuant to ITB 19.1, the bid security shall be a demand guarantee in any of the following forms at the Bidder's option:
- (a) An unconditional guarantee issued by a bank or financial institution (such as an insurance, bonding or surety company);
  - (b) An irrevocable letter of credit;
  - (c) A cashier's or certified check; or
  - (d) Another security **specified in the BDS**;
- from a reputable source from an eligible country as specified in Section V, Eligibility Criteria. If the unconditional guarantee is issued by a financial institution located outside the Purchaser's Country, the issuing financial institution shall have a correspondent financial institution located in the Purchaser's Country to make it enforceable. In the case of a bank guarantee, the bid security shall be submitted either using the Bid Security Form included in Section IV, Bidding Forms, or in another substantially similar format approved by the Purchaser prior to bid submission. The bid security shall be valid for twenty-eight (28) days beyond the original validity period of the bid, or beyond any period of extension if requested under ITB 18.2.
- 19.4 If a Bid Security is specified pursuant to ITB 19.1, any bid not accompanied by a substantially responsive Bid Security or Bid-Securing Declaration shall be rejected by the Purchaser as non-responsive.
- 19.5 The Bid Security of unsuccessful Bidders shall be returned as promptly as possible upon the successful Bidder's signing the contract and furnishing the Performance Security pursuant to ITB 42.
- 19.6 The Bid Security of the successful Bidder shall be returned as promptly as possible once the successful Bidder has signed the contract and furnished the required performance security.
- 19.7 The Bid Security may be forfeited or the Bid Securing Declaration executed:
- (a) If a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Bid Submission Form, or any extension thereto provided by the Bidder; or
  - (b) If the successful Bidder fails to:

- (i) Sign the Contract in accordance with ITB 41; or
- (ii) Furnish a performance security in accordance with ITB 42.

19.8 The Bid Security or Bid- Securing Declaration of a JV must be in the name of the JV that submits the bid. If the JV has not been legally constituted into a legally enforceable JV at the time of bidding, the Bid Security or Bid-Securing Declaration shall be in the names of all future members as named in the letter of intent referred to in ITB 4.1 and ITB 11.2.

19.9 If a bid security is **not required in the BDS**, pursuant to ITB 19.1, and:

- (a) If a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Bid Submission Form, or any extension thereto provided by the Bidder; or
- (b) If the successful Bidder fails to: sign the Contract in accordance with ITB 41; or furnish a performance security in accordance with ITB 42;

the Purchaser may, **if provided for in the BDS**, declare the Bidder ineligible to be awarded a contract by the Purchaser for a period of time **as stated in the BDS**.

## 20. Format and Signing of Bid

20.1 The Bidder shall prepare one original of the documents comprising the bid as described in ITB 11 and clearly mark it "ORIGINAL." Alternative bids, if permitted in accordance with ITB 13, shall be clearly marked "ALTERNATIVE." In addition, the Bidder shall submit copies of the bid, in the number **specified in the BDS** and clearly mark them "COPY." In the event of any discrepancy between the original and the copies, the original shall prevail.

20.2 The original and all copies of the bid shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Bidder. This authorization shall consist of a written confirmation **as specified in the BDS** and shall be attached to the bid. The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the bid where entries or amendments have been made shall be signed or initialed by the person signing the bid.

20.3 In case the Bidder is a JV, the Bid shall be signed by an authorized representative of the JV on behalf of the JV, and so as to be legally binding on all the members as evidenced by a power of attorney signed by their legally authorized representatives. If the JV has not been legally constituted into a legally enforceable JV at the time of bidding, then the Bid shall be signed by every member of the proposed JV.

20.4 Any inter-lineation, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the bid.



## D. Submission and Opening of Bids

- 21. Sealing and Marking of Bids**
- 21.1 The Bidder shall enclose the original and all copies of the bid, including alternative bids, if permitted in accordance with ITB 13, in separate sealed envelopes, duly marking the envelopes as “ORIGINAL”, “ALTERNATIVE” and “COPY”. These envelopes containing the original and the copies shall then be enclosed in one single envelope.
- 21.2 The inner and outer envelopes shall:
- (a) Bear the name and address of the Bidder;
  - (b) Be addressed to the Purchaser in accordance with ITB 22.1;
  - (c) Bear the specific identification of this bidding process indicated in ITB 1.1; and
  - (d) Bear a warning not to open before the time and date for bid opening.
- 21.3 If all envelopes are not sealed and marked as required, the Purchaser will assume no responsibility for the misplacement or premature opening of the bid.
- 22. Deadline for Submission of Bids**
- 22.1 Bids must be received by the Purchaser at the address and no later than the date and time **specified in the BDS. When so specified in the BDS**, bidders shall have the option of submitting their bids electronically. Bidders submitting bids electronically shall follow the electronic bid submission procedures **specified in the BDS**.
- 22.2 The Purchaser may, at its discretion, extend the deadline for the submission of bids by amending the Bidding Documents in accordance with ITB 8, in which case all rights and obligations of the Purchaser and Bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.
- 23. Late Bids**
- 23.1. The Purchaser shall not consider any bid that arrives after the deadline for submission of bids, in accordance with ITB 22. Any bid received by the Purchaser after the deadline for submission of bids shall be declared late, rejected, and returned unopened to the Bidder.
- 24. Withdrawal, Substitution, and Modification of Bids**
- 24.1 A Bidder may withdraw, substitute, or modify its Bid after it has been submitted by sending a written notice, duly signed by an authorized representative, and shall include a copy of the authorization (the power of attorney) in accordance with ITB 20.2. The corresponding substitution or modification of the bid must accompany the respective written notice. All notices must be:
- (a) Prepared and submitted in accordance with ITB 20 and 21 (except that withdrawal notices do not require copies), and in addition, the respective envelopes shall be clearly marked “WITHDRAWAL,” “SUBSTITUTION,” or “MODIFICATION”; and

- (b) Received by the Purchaser prior to the deadline prescribed for submission of bids, in accordance with ITB 22.

24.2 Bids requested to be withdrawn in accordance with ITB 24.1 shall be returned unopened to the Bidders.

24.3 No bid may be withdrawn, substituted, or modified in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Bid Submission Form or any extension thereof.

## 25. Bid Opening

25.1 Except as in the cases specified in ITB 23 and 24, the Purchaser shall publicly open and read out in accordance with ITB 25 all bids received by the deadline (regardless of the number of bids received), at the date, time and place **specified in the BDS** in the presence of Bidders' designated representatives and anyone who choose to attend. Any specific electronic bid opening procedures required if electronic bidding is permitted, in accordance with ITB 22.1, shall be as **specified in the BDS**.

25.2 First, envelopes marked "WITHDRAWAL" shall be opened and read out and the envelope with the corresponding bid shall not be opened, but returned to the Bidder. No bid withdrawal shall be permitted unless the corresponding withdrawal notice contains a valid authorization to request the withdrawal and is read out at bid opening. Next, envelopes marked "SUBSTITUTION" shall be opened and read out and exchanged with the corresponding Bid being substituted, and the substituted Bid shall not be opened, but returned to the Bidder. No Bid substitution shall be permitted unless the corresponding substitution notice contains a valid authorization to request the substitution and is read out at bid opening. Envelopes marked "MODIFICATION" shall be opened and read out with the corresponding Bid. No Bid modification shall be permitted unless the corresponding modification notice contains a valid authorization to request the modification and is read out at Bid opening. Only bids that are opened and read out at Bid opening shall be considered further.

25.3 All other envelopes shall be opened one at a time, reading out: the name of the Bidder and whether there is a modification; the total Bid Prices, per lot (contract) if applicable, including any discounts and alternative bids; the presence or absence of a Bid Security or Bid-Securing Declaration, if required; and any other details as the Purchaser may consider appropriate. Only discounts and alternative bids read out at Bid opening shall be considered for evaluation. The Bid Submission Form and the Price Schedules are to be initialed by a minimum of three representatives of the Purchaser attending bid opening. The Purchaser shall neither discuss the merits of any bid nor reject any bid (except for late bids, in accordance with ITB 23.1).

25.4 The Purchaser shall prepare a record of the bid opening that shall include, as a minimum: the name of the Bidder and whether there is a withdrawal, substitution, or modification; the Bid Price, per lot

(contract) if applicable, including any discounts, and alternative bids; and the presence or absence of a Bid Security or Bid-Securing Declaration, if one was required. The Bidders' representatives who are present shall be requested to sign the record. The omission of a Bidder's signature on the record shall not invalidate the contents and effect of the record. A copy of the record shall be distributed to all Bidders.

### **E. Evaluation and Comparison of Bids**

- 26. Confidentiality**
- 26.1 Information relating to the examination, evaluation, and comparison of the bids, and qualification of the Bidders and recommendation of contract award, shall not be disclosed to Bidders or any other persons not officially concerned with the bidding process until information on Contract Award is communicated to all Bidders in accordance with ITB 40.
- 26.2 Any attempt by a Bidder to influence the Purchaser in the examination, evaluation, and comparison of the bids, and qualification of the bidders, or contract award decisions may result in the rejection of its Bid.
- 26.3 Notwithstanding ITB 26.2, from the time of bid opening to the time of Contract Award, if any Bidder wishes to contact the Purchaser on any matter related to the bidding process, it shall do so in writing.
- 27. Clarification of Bids**
- 27.1 To assist in the examination, evaluation, comparison of the bids, and qualification of the Bidders, the Purchaser may, at its discretion, ask any Bidder for a clarification of its Bid, given a reasonable time for a response. Any clarification submitted by a Bidder that is not in response to a request by the Purchaser shall not be considered. The Purchaser's request for clarification and the response shall be in writing. No change, including any voluntary increase or decrease, in the prices or substance of the Bid shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Purchaser in the Evaluation of the bids, in accordance with ITB 31.
- 27.2 If a Bidder does not provide clarifications of its Bid by the date and time set in the Purchaser's request for clarification, its Bid may be rejected.

- 28. Deviations, Reservations, and Omissions**
- 28.1 During the evaluation of bids, the following definitions apply:
- (a) “Deviation” is a departure from the requirements specified in the Bidding Documents;
  - (b) “Reservation” is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the Bidding Documents; and
  - (c) “Omission” is the failure to submit part or all of the information or documentation required in the Bidding Documents.
- 29. Determination of Responsiveness**
- 29.1 The Purchaser’s determination of a bid’s responsiveness is to be based on the contents of the bid itself, as defined in ITB 11.
- 29.2 A substantially responsive Bid is one that meets the requirements of the Bidding Documents without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that:
- (a) If accepted, would:
    - (i) Affect in any substantial way the scope, quality, or performance of the Goods and Related Services specified in the Contract; or
    - (ii) Limit in any substantial way, inconsistent with the Bidding Documents, the Purchaser’s rights or the Bidder’s obligations under the proposed Contract; or
  - (b) If rectified, would unfairly affect the competitive position of other bidders presenting substantially responsive bids.
- 29.3 The Purchaser shall examine the technical aspects of the bid submitted in accordance with ITB 16, in particular, to confirm that all requirements of Section VII, Schedule of Requirements have been met without any material deviation or reservation, or omission.
- 29.4 If a bid is not substantially responsive to the requirements of the Bidding Documents, it shall be rejected by the Purchaser and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.
- 30. Nonconformities, Errors and Omissions**
- 30.1 Provided that a Bid is substantially responsive, the Purchaser may waive any nonmaterial nonconformities in the Bid.
- 30.2 Provided that a bid is substantially responsive, the Purchaser may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities in the bid related to documentation requirements. Requesting information or documentation on such nonconformities shall not be related to any aspect of the price of the Bid.

- Failure of the Bidder to comply with the request may result in the rejection of its Bid.
- 30.3 Provided that a bid is substantially responsive, the Purchaser shall rectify quantifiable nonmaterial nonconformities related to the Bid Price. To this effect, the Bid Price shall be adjusted, for comparison purposes only, to reflect the price of a missing or non-conforming item or component.
- 31. Correction of Arithmetical Errors**
- 31.1 Provided that the Bid is substantially responsive, the Purchaser shall correct arithmetical errors on the following basis:
- (a) If there is a discrepancy between the unit price and the line item total that is obtained by multiplying the unit price by the quantity, the unit price shall prevail and the line item total shall be corrected, unless in the opinion of the Purchaser there is an obvious misplacement of the decimal point in the unit price, in which case the line item total as quoted shall govern and the unit price shall be corrected;
  - (b) If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
  - (c) If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) and (b) above.
- 31.2 Bidders shall be requested to accept correction of arithmetical errors. Failure to accept the correction in accordance with ITB 31.1 shall result in the rejection of the Bid.
- 32. Conversion to Single Currency**
- 32.1 For evaluation and comparison purposes, the currency(ies) of the Bid shall be converted in a single currency as **specified in the BDS**.
- 33. Margin of Preference**
- 33.1 **Unless otherwise specified in the BDS**, a margin of preference shall not apply.
- 34. Evaluation of Bids**
- 34.1 The Purchaser shall use the criteria and methodologies listed in this Clause. No other evaluation criteria or methodologies shall be permitted.
- 34.2 To evaluate a Bid (evaluation will be done for Items or Lots (contracts), as **specified in the BDS**), the Purchaser shall consider the following:
- (a) The Bid Price as quoted in accordance with clause 14;
  - (b) Price adjustment for correction of arithmetic errors in accordance with ITB 31.1;
  - (c) Price adjustment due to discounts offered in accordance with ITB 14.4;

- (d) Price adjustment due to quantifiable nonmaterial nonconformities in accordance with ITB 30.3;
  - (e) Converting the amount resulting from applying (a) to (d) above, if relevant, to a single currency in accordance with ITB 32;
  - (f) The additional evaluation factors as specified in Section III, Evaluation and Qualification Criteria.
- 34.3 The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in bid evaluation.
- 34.4 If these Bidding Documents allows Bidders to quote separate prices for different lots (contracts), the methodology to determine the lowest evaluated price of the lot (contract) combinations, including any discounts offered in the Bid Submission Form, is specified in Section III, Evaluation and Qualification Criteria
- 34.5 The Purchaser's evaluation of a bid will exclude and not take into account:
- (a) In the case of Goods manufactured in the Purchaser's Country, sales and other similar taxes, which will be payable on the goods if a contract is awarded to the Bidder;
  - (b) In the case of Goods manufactured outside the Purchaser's Country, already imported or to be imported, customs duties and other import taxes levied on the imported Good, sales and other similar taxes, which will be payable on the Goods if the contract is awarded to the Bidder;
  - (c) In the case of Related Services, customs duties and sales and other similar taxes that will be payable on the Related Services if the contract is awarded to the Bidder;
  - (d) Any allowance for price adjustment during the period of execution of the contract, if provided in the bid.
- 34.6 The Purchaser's evaluation of a bid may require the consideration of other factors, in addition to the Bid Price quoted in accordance with ITB 14. These factors may be related to the characteristics, performance, and terms and conditions of purchase of the Goods and Related Services. The effect of the factors selected, if any, shall be expressed in monetary terms to facilitate comparison of bids, unless otherwise **specified** in Section III, Evaluation and Qualification Criteria. The criteria and methodologies to be used shall be as specified in Section III, Evaluation and Qualification Criteria.
- 34.7 If the bid, which results in the lowest Evaluated Bid Price, is significantly lower than the Purchaser's estimate, the Purchaser shall require the Bidder to produce detailed price analyses for any or all items of the Price Schedules, to demonstrate the internal consistency of those prices with the supply requirements and the method and schedule

proposed. If one or several inconsistencies are evidenced, the bid shall be declared non-compliant and rejected.

- 35. Comparison of Bids** 35.1 The Purchaser shall compare the evaluated prices of all substantially responsive bids established in accordance with ITB 34.2 to determine the lowest evaluated bid.
- 36. Qualification of the Bidder** 36.1 The Purchaser shall determine to its satisfaction whether the Bidder that is selected as having submitted the lowest evaluated and substantially responsive bid meets the qualifying criteria specified in Section III, Evaluation and Qualification Criteria.
- 36.2 The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB 17.
- 36.3 An affirmative determination shall be a prerequisite for award of the Contract to the Bidder. A negative determination shall result in disqualification of the bid, in which event the Purchaser shall proceed to the next lowest evaluated bid to make a similar determination of that Bidder's qualifications to perform satisfactorily.
- 37. Purchaser's Right to Accept Any Bid, and to Reject Any or All Bids** 37.1 The Purchaser reserves the right to annul the bidding process and reject all bids at any time prior to contract award, without thereby incurring any liability to Bidders. In case of annulment, all bids submitted and specifically, bid securities, shall be promptly returned to the Bidders.

## F. Award of Contract

- 38. Award Criteria** 38.1 Subject to ITB 37.1, the Purchaser shall award the Contract to the Bidder whose bid has been determined to be the lowest evaluated bid and is substantially responsive to the Bidding Documents, provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily.
- 39. Purchaser's Right to Vary Quantities at Time of Award** 39.1 At the time the Contract is awarded, the Purchaser reserves the right to increase or decrease the quantity of Goods and Related Services originally specified in Section VII, Schedule of Requirements, provided this does not exceed the percentages **specified in the BDS**, and without any change in the unit prices or other terms and conditions of the bid and the Bidding Documents.
- 40. Notification of Award** 40.1 Prior to the expiration of the period of bid validity, the Purchaser shall notify the successful Bidder, in writing, that its Bid has been accepted. The notification letter (hereinafter and in the Conditions of Contract and Contract Forms called the "Letter of Acceptance") shall specify the sum that the Purchaser will pay the Supplier in consideration of the supply of Goods (hereinafter and in the Conditions of Contract and Contract Forms called "the Contract Price"). At the same time, the Purchaser shall also notify all other Bidders of the results of the bidding.

- 40.2 Until a formal Contract is prepared and executed, the notification of award shall constitute a binding Contract.
- 40.3 The Purchaser shall promptly respond in writing to any unsuccessful Bidder who, after notification of award in accordance with ITB 40.1, requests in writing the grounds on which its bid was not selected.
- 41. Signing of Contract**
- 41.1 Promptly after notification, the Purchaser shall send the successful Bidder the Contract Agreement.
- 41.2 Within twenty-eight (28) days of receipt of the Contract Agreement, the successful Bidder shall sign, date, and return it to the Purchaser.
- 41.3 Notwithstanding ITB 41.2 above, in case signing of the Contract Agreement is prevented by any export restrictions attributable to the Purchaser, to the country of the Purchaser, or to the use of the products/goods, systems or services to be supplied, where such export restrictions arise from trade regulations from a country supplying those products/goods, systems or services, the Bidder shall not be bound by its bid, always provided however, that the Bidder can demonstrate to the satisfaction of the Purchaser and of the AFD that signing of the Contract Agreement has not been prevented by any lack of diligence on the part of the Bidder in completing any formalities, including applying for permits, authorizations and licenses necessary for the export of the products/goods, systems or services under the terms of the Contract.
- 42. Performance Security**
- 42.1 Within twenty-eight (28) days of the receipt of notification of award from the Purchaser, the successful Bidder shall furnish the Performance Security in accordance with the GCC, using for that purpose the Performance Security Form included in Section X, Contract Forms, or another Form acceptable to the Purchaser. If the Performance Security furnished by the successful Bidder is in the form of a bond, it shall be issued by a bonding or insurance company that has been determined by the successful Bidder to be acceptable to the Purchaser. A foreign institution providing a bond shall have a correspondent financial institution located in the Purchaser's Country.
- 42.2 Failure of the successful Bidder to submit the above-mentioned Performance Security or sign the Contract shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security or execution of the Bid-Securing Declaration. In that event the Purchaser may award the Contract to the next lowest evaluated Bidder, whose bid is substantially responsive and is determined by the Purchaser to be qualified to perform the Contract satisfactorily.



## Section II. Bid Data Sheet (BDS)

The following specific data for the goods to be procured shall complement, supplement, or amend the provisions in the Instructions to Bidders (ITB). Whenever there is a conflict, the provisions herein shall prevail over those in ITB.

*[Instructions for completing the Bid Data Sheet are provided, as needed, in the notes in italics mentioned for the relevant ITB Clauses.]*

<b>ITB Clause Reference</b>	<b>A. General</b>
<b>ITB 1.1</b>	The number of the Invitation for Bids is: <b>COI/HYDROMET/AOI/2025/04</b>
<b>ITB 1.1</b>	The Purchaser is: <b>Indian Ocean Commission</b>
<b>ITB 1.1</b>	<p>The name and identification number of the IPC are: <b>Procurement of Forecaster Workstations N°COI/HYDROMET/AOI/2025/04</b></p> <p>The number, identification and names of the lots (contracts) comprising this IPC are:</p> <ul style="list-style-type: none"> <li>• Lot 1 : Procurement of Forecaster Workstations for Comoros, Mauritius, Seychelles and the Regional Training Center</li> <li>• Lot 2 : Procurement of Forecaster Workstation for Madagascar including open source and free software solutions</li> </ul>
<b>ITB 2.1</b>	The name of the Project is: <b>HYDROMET</b>
	<b>B. Contents of Bidding Documents</b>
<b>ITB 7.1</b>	<p>For <b>clarification of bid purposes</b> only, the Purchaser's address is:</p> <p><b>General Secretariat of Indian Ocean Commission (IOC)</b>  <b>Attention: Gina BONNE, Chargé de mission</b>  <b>Blue Tower, 3rd floor, Institute Road, Ébène, Maurice</b>  <b>Tel : (230) 402 6100</b></p> <p><b>Email : <a href="mailto:gina.bonne@coi-ioc.org">gina.bonne@coi-ioc.org</a> with copy to <a href="mailto:smc@coi-ioc.org">smc@coi-ioc.org</a></b></p>
<b>ITB 7.1</b>	Web page: <a href="https://www.commissionoceanindien.org">https://www.commissionoceanindien.org</a>
	<b>C. Preparation of Bids</b>
<b>ITB 10.1</b>	The language of the bid is English.

	All correspondence exchange shall be in the English language. Language for translation of supporting documents and printed literature is English.
<b>ITB 11.1 (k)</b>	The Bidder shall submit the following additional documents in its bid: <ul style="list-style-type: none"> <li>• A company registration document</li> <li>• A written guarantee that the use of the proposed equipment is not likely to have an effect on the social, health of users and does not lead to environmental pollution.</li> </ul>
<b>ITB 13.1</b>	Alternative Bids <b>shall not be</b> considered.
<b>ITB 14.5</b>	The prices quoted by the Bidder <b>shall not</b> be adjustable.
<b>ITB 14.6</b>	Prices quoted for each lot shall correspond at least to 100 % of the items specified for each lot. Prices quoted for each item of a lot shall correspond at least to hundred percent of the quantities specified for this item of a lot.
<b>ITB 14.7</b>	The Incoterms edition is Incoterms 2010. However, the definition of the place and date associated with “delivery” is modified as follows: <p>(a) Under “CIP” Incoterms defines “delivery” as the place and date where risk transfers from the seller to the buyer.</p> <p>(b) In these Bidding Documents, when using “CIP” and not referring to the transfer of risk, the term “delivery” shall be interpreted as the date and place where the Goods and Related Services arrive at the <u>named place of destination</u>, and this date should be reflected in the Delivery and Completion Schedule.</p>
<b>ITB 14.8 (b)</b> <b>(i)</b>	Named Place of Destination: CIP Incoterm: <u>Lot 1 :</u> <ul style="list-style-type: none"> <li>• Comores, to « l’Agence Nationale de l’Aviation Civile et de la Météorologie (ANACM) », Moroni</li> <li>• Mauritius, to the « Mauritius Meteorological Services (MMS) », Vacoas</li> <li>• Seychelles, at « Seychelles Meteorological Agency (SMA) », Mahé</li> </ul> <u>Lot 2 :</u> <ul style="list-style-type: none"> <li>• Madagascar, to « Direction Générale de la Météorologie (DGM) », Antananarivo</li> </ul>
<b>ITB 15.1</b>	The prices shall be quoted by the bidder in: <b>US\$</b>  The Bidder <b>is not</b> required to quote in the currency of the Purchaser’s Country the portion of the bid price that corresponds to expenditures incurred in that currency.

<b>ITB 16.4</b>	Life time of the Goods are expected to be (for the purpose of spare parts): <b>five (5) years</b>
<b>ITB 17.2 (a)</b>	Manufacturer's authorization is <b>required</b>
<b>ITB 17.2 (b)</b>	After sales service is <b>required</b>
<b>ITB 18.1</b>	The bid validity period shall be <b>120 days</b> .
<b>ITB 18.3 (a)</b>	The bid price shall be adjusted by the following factor: <b>as will be indicated in the request for bid validity extension</b>
<b>ITB 19.1</b>	A Bid Security is not required. A Bid-Securing Declaration is required
<b>ITB 19.3 (d)</b>	Other types of acceptable securities: None
<b>ITB 19.9</b>	not applicable
<b>ITB 20.1</b>	In addition to the original of the bid, the number of copies is: <b>Two (2)</b>
<b>ITB 20.2</b>	The written confirmation of authorization to sign on behalf of the Bidder shall consist of: a power of attorney established in the name of the signatory of the bid
<b>D. Submission and Opening of Bids</b>	
<b>ITB 22.1</b>	For bid submission purposes, the Purchaser's address is: <b>General Secretariat of Indian Ocean Commission (IOC)</b> <b>Service contrats et Marché</b> <b>Blue Tower, 4th Floor, Rue de l'Institut, Ebène, Mauritius</b> <b>Telephone: (+230) 402 6100 - Fax : (+230) 465 6789</b>  The deadline for the submission of bids is: Date: <b>30 April 2025</b> Time: <b>02:00 PM</b>
<b>ITB 22.1</b>	Bidders shall not have the option of submitting their bids electronically.
<b>ITB 25.1</b>	The bid opening shall take place at: <b>General Secretariat of Indian Ocean Commission (IOC)</b> <b>Service contrats et Marché</b> Blue Tower, 4th Floor, Rue de l'Institut, Ebène, Mauritius Telephone: (+230) 402 6100 - Fax : (+230) 465 6789 Date: <b>30 April 2025</b> Time: <b>03:00 PM</b>  No minimum number of bids is required in order to proceed to bid opening.

<b>E. Evaluation and Comparison of Bids</b>	
<b>ITB 32.1</b>	The source of exchange rate shall be: <b>Central bank of Mauritius</b> The date for the exchange rate shall be <b>the deadline for the submission of bids</b>
<b>ITB 33.1</b>	A margin of domestic preference shall not apply.
<b>ITB 34.2</b>	Evaluation will be done for: lot  Bids will be evaluated lot by lot. If a Price Schedule shows items listed but not priced, their prices shall be assumed to be included in the prices of other items. An item not listed in the Price Schedule shall be assumed to be not included in the bid, and provided that the bid is substantially responsive, the highest price of the item quoted by substantially responsive bidders will be added to the bid price and the equivalent total cost of the bid so determined will be used for price comparison.
<b>F. Award of Contract</b>	
<b>ITB 39.1</b>	The maximum percentage by which quantities may be increased is: 15% The maximum percentage by which quantities may be decreased is: 15%

## Section III. Evaluation and Qualification Criteria

*This Section complements the Instructions to Bidders. It contains the criteria that the Purchaser may use to evaluate a bid and determine whether a Bidder has the required qualifications. No other criteria shall be used.*

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## 1. Evaluation (ITB 34)

### 1.1 Evaluation Criteria (ITB 34.6)

#### **1.1.1. Assessment of compliance of technical proposal with requirements:**

Determination of responsiveness shall be carried out in accordance with ITB 29 and ITB 34. In particular, conformity of the Works offered with values specified in the Table of performance requirements in the Employer's Requirements, including conformity with the specified minimum (or maximum, as the case may be) requirement corresponding to each functional guarantee shall be thoroughly verified.

The quantities that are indicated in the section VII are the foreseen quantities recommended by the Employer. In case of proposed alternative quantities from the bidder, its offer will not be rejected provided that the offer complies with the project objectives of the section VII.

#### **1.1.2. Acceptability of the security methodology**

When the security risks are assessed as high, and therefore, the Bidding Documents include security specifications in Section VII – Employer's Requirements, then the technical proposal must include a security methodology, in accordance with ITB 11 of the Bid Data Sheet.

The security methodology shall be evaluated to determine whether each admissibility requirement specified in the security specifications is met. Otherwise, the Bid will be rejected.

#### **1.1.3. Scoring of the Technical Bid:**

Substantially responsive Technical Bids shall be scored in accordance with ITB 34. The technical factors and sub-factors, and the corresponding weights applicable for each lot are:

The technical factors (sub-factors) and the corresponding weight out of 100% are:		Reference in specification table at section VII
Technical Factors	Weight in percentage (insert weight in %)	
<b>1. Approach and Methodology Including Section VII:</b>	<b>75</b>	
(i) Compliance with the technical specifications requested	50	See table of technical specifications required
(ii) Design Methodology and work program (including quality of the drawings, explanations of the technology proposed)	15	See 4.1, 4.2 and 4.4 of section VII
(iii) Technical support including operation and maintenance	10	See 10.1.1 to 10.1.17 of the section VII
<b>2. Key Personnel qualifications</b>	<b>25</b>	See 4.3 of the section VII
(i) CV of Project manager	5	
(ii) CV of workstation system software expert for hard and software installation and commissioning	5	
(iii) CV of System Integrator	5	
(iv) CV of operational Forecasters trainer	5	
(v) CV of Quality Assurance/Quality Control Manager	5	

The number of points to be assigned for each sub-factors mentioned above shall be broken down as follows:

**Evaluation of the technical factor N°1 (Approach and Methodology)**

(i)	Compliance of the approach with the technical specifications	20%
(ii)	The methodology is clear and complete: supporting documentation provided, organization described, resources mobilized, list of activities, risks and assumptions	20%
(iii)	The methodology is relevant, fully meets the Employer's Requirements and contains quality control and innovations	20%
(iv)	The work plan is detailed, realistic and in line with the Employer's Requirements and proposed methodology	20%
(v)	The number, qualification and experience levels of experts and the expected number of working days and costs for each expert are adequate to satisfactorily perform each activity.	20%
<b>TOTAL</b>		<b>100%</b>

**Evaluation of the technical factor N°2 (Key Personnel qualifications and resource schedule):**

General qualifications (general education, training, and experience)	10%
Adequacy for the services (relevant education, training, experience in the sector/similar services)	60%
Relevant experience in the region (working level fluency in local language(s)/knowledge of local culture or administrative system, government organization, etc.)	10%
Number of years of experience of the Key Personnel	20%
<b>Total Weight</b>	<b>100%</b>

The number of points to be assigned for each Key Personnel mentioned above shall be broken down as follows:

The total points result will represent for each category against a predetermined score as shown in the table below and based on their level of responsiveness in percentage to the appropriate requirements.

1	Excellent (100%)	:	Full Understanding of Employer's Requirement, Extra Consideration, Superior Proposal
2	Good (80%)	:	Good Understanding of Employer's Requirement, Fine Consideration, Specific Good Proposal
3	Sufficient (60%)	:	General Understanding of Employer's Requirement, Enough Consideration, Common Proposal
4	Insufficient (40%)	:	Inadequate Understanding of Employer's Requirement, Inappropriate consideration, Deficient Proposal
5	Poor (20%)	:	Misunderstanding of Employer's Requirement, Defective Proposal, Not Clear Description
6	Fail (0%)	:	No Submission, Major Misunderstanding of Employer's Requirement Fatal defect in proposal

The minimum scores required to pass are as follows:

- Total average score of the **technical factor** above: not less than seventy percent (70%)

Tenders that pass the Detailed Examination will be accepted from a technical point of view and taken to the next evaluation stage.

### 1.1.4. Submission tables for the technical specifications requested

N°	Point of the specifications requested	Reference in section VII	Reference (chapter, paragraph) of the documentation submitted by bidders presenting the requested specifications
1.	Design Methodology and work program (including quality of the drawings, explanations of the technology proposed)	4.1, 4.2 and 4.4	<i>[Bidder must indicate his document reference here]</i>
2.	Infrastructure and Installation General Requirement	4.5	
3.	Systems Interfaces, Data Integration Support and Services	4.6	
4.	Spare parts	4.7	
5.	Quantity	4.8	
6.	System overview	5.1	
7.	Graphical User Interface	5.2	
8.	User privilege management	5.3	
9.	Real time data acquisition	5.4.1	
10.	Data identification	5.4.2	
11.	Data decoding	5.4.3	
12.	Data storage subsystem including backup and archive	5.5	
13.	Selection of data: Catalog Application	6.1	
14.	Map application	6.2	
15.	Meteogram and table application	6.3	
16.	Vertical profile application	6.4	
17.	Forecast vertical cross section application	6.5	
18.	Hovmöller application	6.6	
19.	Graphical bulletin and message viewing application	6.7	
20.	Macro tools ( e.g for Synthetic analysis and forecasts of surface and upper air data)	6.8	
21.	Watches	6.9	
22.	Windows manager	6.10	
23.	Numerical Weather Prediction (NWP) application	6.11	
24.	Observation plotting application	6.12	
25.	Satellite application	6.13	
26.	Radar application	6.14	
27.	Lightning application	6.15	
28.	Tracks application	6.16	
29.	Expertise viewing application	6.17	
30.	WMS, WCS and Open DAP external data source	6.18	
31.	Weather expertise application	6.19	
32.	Aviation, disaster risk management, agriculture, marine, tourism, fishery application	6.20	
33.	Free text and chart editor	6.21	
34.	Weather expertise – Digital forecast	6.22	
35.	Weather expertise – Digital warning	6.23	
36.	Production subsystem	6.24	
37.	Technical support including operation and maintenance	10.1	



**1.1.5. Evaluation of Bid Price:**a) Net Present Value Evaluation

The Design Build Bid Price shall not be discounted.

Taking into account the Net Present Value Evaluation of the Operation Service Bid Price, the annual amounts in the Operation Service Price Schedules, as adjusted in accordance with ITB 37.2 (a) to (e), shall be discounted using a discount rate  $I$  of 0 %

b) Operation and/or Maintenance Costs

An adjustment to take into account the extended operating and/or maintenance costs of the Works will be added to the Bid Price, for evaluation purposes only. The adjustment will be calculated by determining the total Operation & Maintenance Evaluated Price (OMEP) using the following formula:

$$OMEP = \sum_{x=1}^N OM_x + \sum_{x=1+N}^M \frac{OM_N}{(1+I)^{x-N}}$$

Where:

- $N$  = Number of years of Operation Service already included in the Contract (Sub-Clause 8.2 of PCC);
- $M$  = The life span expectancy of the facility specified in the Table of performance requirements of Section VII, Employer's Requirements;
- $x$  = An index number 1, 2, 3, ... M representing the total number of years to be taken into account in the bid evaluation with regards to operation and/or maintenance costs;
- $OM(*)$  = Operation Service cost for year "x," as provided by the Bidder in the specific Operation Service Price Schedule (Schedule 5) of Price Schedules of Section IV, Bidding Forms. The rate for the last year priced under the Contract shall be applied for each subsequent year;
- $I$  = Discount rate to be used for the Net Present Value calculation.
- (\*) This cost includes electricity cost even if the electricity payments are made by the Employer.

Asset Replacement (AR) is calculated as follows:

$$AR = EM + EL + IT$$

Where:

- $EM$  = Cost of replacement of Electromechanical Equipment, as listed and priced by the Bidder in Schedules 2 and 3, for a replacement period set at ten (10) years during the life span expectancy of the facility specified in the Table of performance requirements of Section VII, Employer's Requirements;
- $EL$  = Cost of replacement of Electrical Equipment, as listed and priced by the Bidder in Schedules 2 and 3, for a replacement period set at fifteen (15) years during the life span expectancy of the facility specified in the Table of performance requirements of Section VII, Employer's Requirements;
- $IT$  = Cost of replacement of IT and automatic devices, as listed and priced by the Bidder in Schedules 2 and 3, for a replacement period set at five (5) years during the life span expectancy of the facility specified in the Table of performance requirements of Section VII, Employer's Requirements.

**NB: Evaluated Bid Price = Design-Build Price + OMEP + AR**

**1.1.6. Combined Evaluation:**

The Employer will evaluate and compare the Bids that have been determined to be substantially responsive.

The weight to be given for cost is: 70

An Evaluated Bid Score (B) will be calculated for each responsive Bid using the following formula, which permits a comprehensive assessment of the Bid price and the technical merits of each Bid:

$$B = \frac{P_{low}}{P} X + \frac{T}{T_{high}} (1 - X)$$

Where:

$P$	=	Evaluated Bid Price;
$P_{low}$	=	The lowest of all Evaluated Bid Price among responsive Bids;
$T$	=	The total Technical Score awarded to the Bid;
$T_{high}$	=	The Technical Score achieved by the Bid that was scored best among all responsive Bids;
$X$	=	Weight for Cost.

The Bid with the highest evaluated Bid Score (B) among responsive Bids shall be the Most Advantageous Bid provided the Bidder is qualified to perform the Contract.

**1.2. Multiple Contracts (ITB 34.4)**

The Purchaser shall award multiple contracts to the Bidder that offers the lowest evaluated combination of bids (one contract per bid) and meets the post-qualification criteria (this Section III, 2. Qualification (ITB 36)).

The Purchaser shall:

- (a) Evaluate only lots or contracts that include at least the percentages of items per lot and quantity per item as specified in ITB Sub Clause 14.6;
- (b) Take into account:
  - (i) The lowest-evaluated bid for each lot; and
  - (ii) The price reduction per lot and the methodology for its application as offered by the Bidder in its bid.

## 2. Qualification (ITB 36)

After determining the lowest-evaluated bid in accordance with ITB 35.1, the Purchaser shall carry out the post qualification of the Bidder in accordance with ITB 36, using only the requirements specified. Requirements not included in the tables below shall not be used in the evaluation of the Bidder's qualifications.

Eligibility and Qualification Criteria			Compliance Requirements			Documentation	
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Parties Combined	Each Member	One Member	
<b>1. Eligibility</b>							
1.1	<b>Nationality</b>	Nationality in accordance with ITB 4.3	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Forms ELI – 1.1 and 1.2, with attachments
1.2	<b>Conflict of Interest</b>	No conflicts of interest in accordance with ITB 4.2	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Bid Submission Form
1.3	<b>AFD Eligibility</b>	Not being ineligible for AFD financing, as described in ITB 4.3	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Statement of Integrity (appendix to Bid Submission Form)
1.4	<b>State-owned Entity</b>	Meets conditions of ITB 4.3	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Forms ELI – 1.1 and 1.2, with attachments

Eligibility and Qualification Criteria			Compliance Requirements			Documentation	
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Parties Combined	Each Member	One Member	
<b>2. Historical Contract Non-Performance</b>							
2.1	<b>History of Non-Performing Contracts</b>	Termination of a contract <sup>1</sup> did not occur as a result of Supplier default in the past 5 years.	Must meet requirement <sup>2</sup>	Must meet requirements	Must meet requirement <sup>2</sup>	N/A	Form CON-2
2.2	<b>Suspension Based on Execution of Bid Securing Declaration by the Purchaser or withdrawal of the Bid within Bid validity</b>	Not under suspension based on execution of a Bid Securing Declaration pursuant to ITB 4.4 or withdrawal of a Bid pursuant ITB 19.9.	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Bid Submission Form
2.3	<b>Pending Litigation</b>	All pending litigation shall in total not represent more than one hundred percent (100%) of the Bidder's net worth and shall be treated as resolved against the Bidder.	Must meet requirement	N/A	Must meet requirement	N/A	Form CON – 2

<sup>1</sup> Non-performance shall include all terminations of contracts where (a) non-performance was not challenged by the supplier, including through referral to the dispute resolution mechanism under the respective contract, and (b) contracts that were so challenged but fully settled against the supplier. Non-performance shall not include contracts where Purchasers decision was overruled by the dispute resolution mechanism.

<sup>2</sup> This requirement also applies to contracts executed by the Bidder as JV member.

No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Parties Combined	Each Member	One Member	
<b>3. Financial Situation and Performance</b>							
<b>LOT 1</b>							
3.1	<b>Financial Capabilities</b>	<p>Submission of audited balance sheets or if not required by the law of the Bidder's country, other financial statements acceptable to the Purchaser, for the last 3 years to demonstrate the current soundness of the Bidder's financial position based on the following criteria:</p> <p><b>a) liquidity ratio <math>\geq 1.1</math></b>  <math>((\text{Current Assets}) / (\text{Current Liabilities})) \geq 1.1</math></p> <p><b>b) indebtedness ratio <math>\leq 80\%</math></b>  <math>((\text{Total Liabilities}) \times 100 / (\text{Total Assets})) \leq 80\%</math></p>	Must meet requirement	N/A	Must meet requirement	N/A	Form FIN – 3.1, with attachments
3.2	<b>Average Annual Supplier Turnover</b>	<p>Minimum average annual supplier turnover of two hundred thousand <b>(200,000) USD\$,</b> calculated as total certified payments received for contracts in progress and/or completed during at least one of the last, 3 years, divided by 3 years.</p>	Must meet requirement	Must meet requirement	N/A	N/A	Form FIN – 3.2

No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Parties Combined	Each Member	One Member	
<b>3. Financial Situation and Performance</b>							
<b>LOT 2</b>							
3.1	<b>Financial Capabilities</b>	Submission of audited balance sheets or if not required by the law of the Bidder's country, other financial statements acceptable to the Purchaser, for the last 3 years to demonstrate the current soundness of the Bidder's financial position based on the following criteria:  <b>c) liquidity ratio <math>\geq 1.1</math></b> ((Current Assets) / (Current Liabilities) $\geq 1.1$ )  <b>d) indebtedness ratio <math>\leq 80\%</math></b> ((Total Liabilities) x 100 / (Total Assets) $\leq 80\%$ )	Must meet requirement	N/A	Must meet requirement	N/A	Form FIN – 3.1, with attachments
3.2	<b>Average Annual Supplier Turnover</b>	Minimum average annual supplier turnover of two hundred thousand <b>(100,000) USD\$,</b> calculated as total certified payments received for contracts in progress and/or completed during at least one of the last, 3 years, divided by 3 years.	Must meet requirement	Must meet requirement	N/A	N/A	Form FIN – 3.2

No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Parties Combined	Each Member	One Member	
<b>4. Experience</b>							
<b>LOT 1</b>							
4.1	<b>Similar Experience</b>	A minimum number of similar <sup>3</sup> contracts specified below that have been satisfactorily and substantially <sup>4</sup> completed as Supplier, or joint venture member <sup>5</sup> , between 1st <b>January 2017</b> and application submission deadline: <b>two (2) contracts</b> , each of minimum value two hundred thousand <b>(200,000) US Dollars</b> .	Must meet requirement	Must meet requirement <sup>6</sup>	N/A	N/A	Form EXP 4.1
4.2	<b>Specific Experience</b>	Availability at the bid submission date in the Purchaser's Country of spare parts and after sales services facilities in operation for at least 6 months for the Goods offered in the Bid <sup>7</sup>	Must meet requirement	Must meet requirement	N/A	N/A	Form EXP 4.1
<b>LOT 2</b>							

<sup>3</sup> The similarity shall be based on the physical size, complexity, methods/technology and/or other characteristics described in Section VII, Schedule of Requirements. Summation of number of small value contracts (less than the value specified under requirement) to meet the overall requirement will not be accepted.

<sup>4</sup> Substantial completion shall be based on 80% or more completed under the contract.

<sup>5</sup> For contracts under which the Bidder participated as a joint venture member or sub-contractor, only the Bidder's share, by value, shall be considered to meet this requirement.

<sup>6</sup> In the case of JV, the value of contracts completed by its members shall not be aggregated to determine whether the requirement of the minimum value of a single contract has been met. Instead, each contract performed by each member shall satisfy the minimum value of a single contract as required for single entity. In determining whether the JV meets the requirement of total number of contracts, only the number of contracts completed by all members each of value equal or more than the minimum value required shall be aggregated.

<sup>7</sup> An acceptable alternative to meet this requirement is the evidence by the Bidder of one successful experience in the past five (5) years of creating and operating for a period of time exceeding one year an after sales services facility in a foreign country.

No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Parties Combined	Each Member	One Member	
<b>4. Experience</b>							
4.1	<b>Similar Experience</b>	A minimum number of similar <sup>8</sup> contracts specified below that have been satisfactorily and substantially <sup>9</sup> completed as Supplier, or joint venture member <sup>10</sup> , between 1st <b>January 2015</b> and application submission deadline: <b>one (1) contract</b> , each of minimum value one hundred thousand <b>(100,000) US Dollars.</b>	Must meet requirement	Must meet requirement <sup>11</sup>	N/A	N/A	Form EXP 4.1
4.2	<b>Specific Experience</b>	Availability at the bid submission date in the Purchaser's Country of spare parts and after sales services facilities in operation for at least 6 months for the Goods offered in the Bid <sup>12</sup>	Must meet requirement	Must meet requirement	N/A	N/A	Form EXP 4.1

<sup>8</sup> The similarity shall be based on the physical size, complexity, methods/technology and/or other characteristics described in Section VII, Schedule of Requirements. Summation of number of small value contracts (less than the value specified under requirement) to meet the overall requirement will not be accepted.

<sup>9</sup> Substantial completion shall be based on 80% or more completed under the contract.

<sup>10</sup> For contracts under which the Bidder participated as a joint venture member or sub-contractor, only the Bidder's share, by value, shall be considered to meet this requirement.

<sup>11</sup> In the case of JV, the value of contracts completed by its members shall not be aggregated to determine whether the requirement of the minimum value of a single contract has been met. Instead, each contract performed by each member shall satisfy the minimum value of a single contract as required for single entity. In determining whether the JV meets the requirement of total number of contracts, only the number of contracts completed by all members each of value equal or more than the minimum value required shall be aggregated.

<sup>12</sup> An acceptable alternative to meet this requirement is the evidence by the Bidder of one successful experience in the past five (5) years of creating and operating for a period of time exceeding one year an after sales services facility in a foreign country.



### **3. Domestic Preference (ITB 33)**

*Not applicable*

## Section IV. Bidding Forms

### Table of Forms

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## Bid Submission Form

*[The Bidder shall prepare his Bid Submission Form on a Letterhead paper specifying his name and address]*

Date: \_\_\_\_\_

IPC No.: \_\_\_\_\_

Invitation for Bid No.: \_\_\_\_\_

Alternative No.: \_\_\_\_\_

To: \_\_\_\_\_

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders (ITB 8) \_\_\_\_\_;
- (b) We have no conflict of interest in accordance with ITB 4.2.
- (c) We have not been suspended nor declared ineligible by the Purchaser based on execution of a Bid Securing Declaration in the Purchaser's country in accordance with ITB 4.4.
- (d) We offer to supply in conformity with the Bidding Documents and in accordance with the Delivery Schedule specified in the Schedule of Requirements the following Goods: \_\_\_\_\_  
\_\_\_\_\_;
- (e) The total price of our Bid, excluding any discounts offered in item (f) below is:
  - i) In case of only one lot, total price of the Bid  
\_\_\_\_\_
  - ii) In case of multiple lots, total price of each lot \_\_\_\_\_
  - iii) In case of multiple lots, total price of all lots (sum of all lots) \_\_\_\_\_
- (f) The discounts offered and the methodology for their application are:
  - i) The discounts offered are: \_\_\_\_\_
  - ii) The exact method of calculations to determine the net price after application of discounts is shown below: \_\_\_\_\_
- (g) Our bid shall be valid for a period of \_\_\_\_\_ days from the date fixed for the bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (h) If our bid is accepted, we commit to obtain a performance security in accordance with ITB 42 of the Bidding Documents;
- (i) We are not participating, as a Bidder, in more than one bid in this bidding process in accordance with ITB 4.2(e), other than alternative bids submitted in accordance with ITB 13;

- (j) We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed;
- (k) We understand and accept that the Purchaser reserves the right to annul the bidding process and reject all bids at any time prior to contract award, without thereby incurring any liability to Bidders; and
- (l) We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in any type of fraud and corruption.

Name of the Bidder\* \_\_\_\_\_

Name of the person duly authorized to sign the Bid on behalf of the Bidder\*\* \_\_\_\_\_

Title of the person signing the Bid \_\_\_\_\_

Signature of the person named above \_\_\_\_\_

Date signed \_\_\_\_\_ day of \_\_\_\_\_

\*: In the case of the Bid submitted by joint venture specify the name of the Joint Venture as Bidder

\*\* : Person signing the Bid shall have the power of attorney given by the Bidder to be attached with the Bid

## Appendix to Bid Submission Form

### Statement of Integrity, Eligibility and Environmental and Social Responsibility

Reference name of the bid or proposal: \_\_\_\_\_ (The "Contract")

To: \_\_\_\_\_ (The "Contracting Authority")

1. We recognise and accept that *Agence Française de Développement* ("AFD") only finances projects of the Contracting Authority subject to its own conditions which are set out in the Financing Agreement which benefits directly or indirectly to the Contracting Authority. As a matter of consequence, no legal relationship exists between AFD and our company, our joint venture or our suppliers, contractors, subcontractors, consultants or subconsultants. The Contracting Authority retains exclusive responsibility for the preparation and implementation of the procurement process and performance of the contract. The Contracting Authority means the Purchaser, the Employer, the Client, as the case may be, for the procurement of goods, works, plants, consulting services or non-consulting services.
2. We hereby certify that neither we nor any other member of our joint venture or any of our suppliers, contractors, subcontractors, consultants or subconsultants are in any of the following situations:
  - 2.1) Being bankrupt, wound up or ceasing our activities, having our activities administered by the courts, having entered into receivership, reorganisation or being in any analogous situation arising from any similar procedure;
  - 2.2) Having been:
    - a. convicted, within the past five years by a court decision, which has the force of *res judicata* in the country where the Contract is implemented, of fraud, corruption or of any other offense committed during a procurement process or performance of a contract (in the event of such conviction, you may attach to this Statement of Integrity supporting information showing that this conviction is not relevant in the context of this Contract);
    - b. subject to an administrative sanction within the past five years by the European Union or by the competent authorities of the country where we are constituted, for fraud, corruption or for any other offense committed during a procurement process or performance of a contract (in the event of such sanction, you may attach to this Statement of Integrity supporting information showing that this sanction is not relevant in the context of this Contract);
    - c. convicted, within the past five years by a court decision, which has the force of *res judicata*, of fraud, corruption or of any other offense committed during the procurement process or performance of an AFD-financed contract;

- 2.3) Being listed for financial sanctions by the United Nations, the European Union, The USA and/or France for the purposes of fight-against-terrorist financing or threat to international peace and security;
  - 2.4) Having been subject within the past five years to a contract termination fully settled against us for significant or persistent failure to comply with our contractual obligations during contract performance, unless this termination was challenged and dispute resolution is still pending or has not confirmed a full settlement against us;
  - 2.5) Not having fulfilled our fiscal obligations regarding payments of taxes in accordance with the legal provisions of either the country where we are constituted or the Contracting Authority's country;
  - 2.6) Being subject to an exclusion decision of the World Bank and being listed on the website <http://www.worldbank.org/debarr> (in the event of such exclusion, you may attach to this Statement of Integrity supporting information showing that this exclusion is not relevant in the context of this Contract);
  - 2.7) Having created false documents or committed misrepresentation in documentation requested by the Contracting Authority as part of the procurement process of this Contract.
3. We hereby certify that neither we, nor any of the members of our joint venture or any of our suppliers, contractors, subcontractors, consultants or subconsultants are in any of the following situations of conflict of interest:
- 3.1) Being an affiliate controlled by the Contracting Authority or a shareholder controlling the Contracting Authority, unless the stemming conflict of interest has been brought to the attention of AFD and resolved to its satisfaction;
  - 3.2) Having a business or family relationship with a Contracting Authority's staff involved in the procurement process or the supervision of the resulting Contract, unless the stemming conflict of interest has been brought to the attention of AFD and resolved to its satisfaction;
  - 3.3) Being controlled by or controlling another bidder or consultant, or being under common control with another bidder or consultant, or receiving from or granting subsidies directly or indirectly to another bidder or consultant, having the same legal representative as another bidder or consultant, maintaining direct or indirect contacts with another bidder or consultant which allows us to have or give access to information contained in the respective applications, bids or proposals, influencing them or influencing decisions of the Contracting Authority;
  - 3.4) Being engaged in a consulting services activity, which, by its nature, may be in conflict with the assignments that we would carry out for the Contracting Authority;
  - 3.5) In the case of procurement of goods, works or plants:
    - i. Having prepared or having been associated with a consultant who prepared specifications, drawings, calculations and other documentation to be used in the procurement process of this Contract;
    - ii. Having been recruited (or being proposed to be recruited) ourselves or any of our affiliates, to carry out works supervision or inspection for this Contract;
4. If we are a state-owned entity, and to compete in a procurement process, we certify that we have legal and financial autonomy and that we operate under commercial laws and regulations.

5. We undertake to bring to the attention of the Contracting Authority, which will inform AFD, any change in situation with regard to points 2 to 4 here above.
6. In the context of the procurement process and performance of the corresponding contract:
  - 6.1) We have not and we will not engage in any dishonest conduct (act or omission) deliberately intended to deceive others, to intentionally conceal items, to violate or vitiate someone's consent, to make them circumvent legal or regulatory requirements and/or to violate their internal rules in order to obtain illegitimate profit;
  - 6.2) We have not and we will not engage in any dishonest conduct (act or omission) contrary to our legal or regulatory obligations or our internal rules in order to obtain illegitimate profit;
  - 6.3) We have not promised, offered or given and we will not promise, offer or give, directly or indirectly to (i) any Person who holds a legislative, executive, administrative or judicial mandate within the State of the Contracting Authority regardless of whether that Person was nominated or elected, regardless of the permanent or temporary, paid or unpaid nature of the position and regardless of the hierarchical level the Person occupies, (ii) any other Person who performs a public function, including for a State institution or a State-owned company, or who provides a public service, or (iii) any other person defined as a Public Officer by the national laws of the Contracting Authority's country, an undue advantage of any kind, for himself or for another Person or entity, for such Public Officer to act or refrain from acting in his official capacity;
  - 6.4) We have not promised, offered or given and we will not promise, offer or give, directly or indirectly to any Person who occupies an executive position in a private sector entity or works for such an entity, regardless of the nature of his/her capacity, any undue advantage of any kind, for himself or another Person or entity for such Person to perform or refrain from performing any act in breach of its legal, contractual or professional obligations;
  - 6.5) We have not and we will not engage in any practice likely to influence the contract award process to the detriment of the Contracting Authority and, in particular, in any anti-competitive practice having for object or for effect to prevent, restrict or distort competition, namely by limiting access to the market or the free exercise of competition by other undertakings;
  - 6.6) Neither we nor any of the members of our joint venture or any of our suppliers, contractors, subcontractors, consultants or subconsultants shall acquire or supply any equipment nor operate in any sectors under an embargo of the United Nations, the European Union or France;
  - 6.7) We commit ourselves to comply with and ensure that all of our suppliers, contractors, subcontractors, consultants or subconsultants comply with international environmental and labour standards, consistent with laws and regulations applicable in the country of implementation of the Contract, including the fundamental conventions of the International Labour Organisation (ILO) and international environmental treaties. Moreover, we shall implement environmental and social risks mitigation measures when specified in the environmental and social commitment plan (ESCP) provided by the Contracting Authority.
7. We, as well as members of our joint venture and our suppliers, contractors, subcontractors, consultants or subconsultants authorise AFD to inspect accounts, records and other documents relating to the procurement process and performance of the contract and to have them audited by auditors appointed by AFD.

Name: \_\_\_\_\_ In the capacity of: \_\_\_\_\_

Duly empowered to sign in the name and on behalf of<sup>13</sup>: \_\_\_\_\_

Signature: \_\_\_\_\_ Dated: \_\_\_\_\_

---

<sup>13</sup> In case of joint venture, insert the name of the joint venture. The person who will sign the application, bid or proposal on behalf of the applicant, bidder or consultant shall attach a power of attorney from the applicant, bidder or consultant.



## Form ELI-1.1: Bidder Information Form

Date: \_\_\_\_\_  
IPC No. and title: \_\_\_\_\_  
Page \_\_\_\_\_ of \_\_\_\_\_ pages

Bidder's name
In case of Joint Venture (JV), name of each member:
Bidder's actual or intended country of constitution: <i>[indicate country of Constitution]</i>
Bidder's actual or intended year of constitution:
Bidder's legal address [in country of constitution]:
Bidder's authorized representative information Name: _____ Address: _____ Telephone/Fax numbers: _____ E-mail address: _____
1. Attached are copies of original documents of <input type="checkbox"/> Articles of Constitution (or equivalent documents of association) of the legal entity named above; <input type="checkbox"/> In case of JV, letter of intent to form JV or JV agreement, in accordance with ITB 4.1; <input type="checkbox"/> In case of state-owned enterprise or institution, in accordance with ITB 4.3 documents establishing: <ul style="list-style-type: none"> <li>a) Legal and financial autonomy;</li> <li>b) Operation under commercial law;</li> <li>c) Establishing that the Bidder is not dependent agency of the Purchaser.</li> </ul>
2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.

## Form ELI-1.2: Bidder's JV Information Form

*(to be completed for each member of Bidder's JV)*

Date: \_\_\_\_\_  
IPC No. and title: \_\_\_\_\_  
Page \_\_\_\_\_ of \_\_\_\_\_ pages

Bidder's JV name:
JV member's name:
JV member's country of constitution:
JV member's year of constitution:
JV member's legal address in country of constitution:
JV member's authorized representative information Name: _____ Address: _____ Telephone/Fax numbers: _____ E-mail address: _____
1. Attached are copies of original documents of <input type="checkbox"/> Articles of Constitution (or equivalent documents of association) of the legal entity named above; <input type="checkbox"/> In case of a state-owned enterprise or institution, documents establishing: <ul style="list-style-type: none"> <li>a) Legal and financial autonomy;</li> <li>b) Operation in accordance with commercial law; and</li> <li>c) Absence of dependent status, in accordance with ITB 4.3.</li> </ul>
2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.

## Form CON-2: Historical Contract Non-Performance, Pending Litigation and Litigation History

*(to be completed by the Bidder and by each member of the Bidder's JV)*

Bidder's Name: \_\_\_\_\_  
Date: \_\_\_\_\_  
JV Member's Name \_\_\_\_\_  
IPC No. and title: \_\_\_\_\_  
Page \_\_\_\_\_ of \_\_\_\_\_ pages

Non-Performed Contracts in accordance with Section III, Evaluation and Qualification Criteria			
<input type="checkbox"/> Contract non-performance did not occur since 1st January <i>[insert current year number less 5]</i> specified in Section III, Evaluation and Qualification Criteria, subclause 2.1.			
<input type="checkbox"/> Contract(s) not performed since 1st January <i>[insert current year number less 5]</i> specified in Section III, Evaluation and Qualification Criteria, subclause 2.1			
Year	Non-performed portion of contract	Contract Identification	Total Contract Amount (current value, currency, exchange rate and US\$ equivalent)
<i>[insert year]</i>	<i>[insert amount and percentage]</i>	Contract Identification: <i>[indicate complete contract name/ number, and any other identification]</i> Name of Purchaser: <i>[insert full name]</i> Address of Purchaser: <i>[insert street/city/country]</i> Reason(s) for non-performance: <i>[indicate main reason(s)]</i>	<i>[insert amount]</i>

Pending Litigation, in accordance with Section III, Qualification Criteria and Requirements			
<input type="checkbox"/> No pending litigation in accordance with Section III, Qualification Criteria and Requirements, subclause 2.3.			
<input type="checkbox"/> Pending litigation in accordance with Section III, Evaluation and Qualification Criteria, subclause 2.3 as indicated below.			
<b>Year of dispute</b>	<b>Amount in dispute (currency)</b>	<b>Contract Identification</b>	<b>Total Contract Amount (currency), US\$ Equivalent (exchange rate)</b>
		Contract Identification: _____ Name of Purchaser: _____ Address of Purchaser: _____ Matter in dispute: _____ Party who initiated the dispute: _____ Status of dispute: _____	

## Form FIN-3.1: Financial Situation and Performance

Bidder's Name: \_\_\_\_\_

Date: \_\_\_\_\_

JV Member's Name \_\_\_\_\_

IPC No. and title: \_\_\_\_\_

Page \_\_\_\_\_ of \_\_\_\_\_ pages

### 1. Financial data

Type of Financial information in (currency)	Historic information for previous _____ years, (amount in currency, currency, exchange rate*, US\$ equivalent)				
	Year 1	Year 2	Year 3	Year 4	Year 5
Statement of Financial Position (Information from Balance Sheet)					
Total Assets (TA)					
Total Liabilities (TL)					
Total Equity/Net Worth (NW)					
Current Assets (CA)					
Current Liabilities (CL)					
Working Capital (WC)					
Information from Income Statement					
Total Revenue (TR)					
Profits Before Taxes (PBT)					
Cash Flow Information					
Cash Flow from Operating Activities					

\*Refer to ITB 15 for the exchange rate

### 2. Financial documents

The Bidder and its parties shall provide copies of financial statements for \_\_\_\_\_ years pursuant Section III, Evaluation and Qualifications Criteria, Sub-factor 3.1. The financial statements shall:

- (a) Reflect the financial situation of the Bidder or in case of JV member, and not an affiliated entity (such as parent company or group member);
  - (b) Be independently audited or certified in accordance with local legislation;
  - (c) Be complete, including all notes to the financial statements;
  - (d) Correspond to accounting periods already completed and audited.
- Attached are copies of financial statements<sup>14</sup> for the \_\_\_\_\_ years required above and complying with the requirements.

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<sup>14</sup> If the most recent set of financial statements is for a period earlier than 12 months from the date of bid, the reason for this should be justified.

## Form FIN-3.2: Average Annual Turnover

Bidder's Name: \_\_\_\_\_

Date: \_\_\_\_\_

JV Member's Name \_\_\_\_\_

IPC No. and title: \_\_\_\_\_

Page \_\_\_\_\_ of \_\_\_\_\_ pages

		Annual turnover data	
Year	Amount Currency	Exchange rate	US\$ equivalent
<i>[indicate year]</i>	<i>[insert amount and indicate currency]</i>		
Average Annual Turnover *			

\* See Section III, Evaluation and Qualification Criteria, Sub-Factor 3.2.

## Form EXP-4.1: Experience

Bidder's Legal Name: \_\_\_\_\_

Date: \_\_\_\_\_

JV Member's Legal Name: \_\_\_\_\_

IPC No.: \_\_\_\_\_

Page \_\_\_\_\_ of \_\_\_\_\_ pages

Similar Contract No. __/insert specific number] of [total number of contracts] __ required	Information	
Contract Identification	_____	
Award date	_____	
Completion date	_____	
Role in Contract	_____	
Total contract amount	_____	US\$ equivalent____ _____
If member in a JV, specify participation in total contract amount	_____%	US\$ equivalent_____
Purchaser's Name:	_____	
Address:	_____	
Telephone/fax number:	_____	
E-mail:	_____	



## Form EXP – 4.1 (cont.) Experience (cont.)

Bidder’s Legal Name: \_\_\_\_\_ Page \_\_\_\_\_ of \_\_\_\_\_ pages  
 JV Member’s Legal Name: \_\_\_\_\_

Similar Contract No. __ /insert specific number] of [total number of contracts] __ required	Information
Description of the similarity in accordance with Sub-Factor 4.1 or 4.2 of Section III:	
Amount	_____
Physical size	_____
Complexity	_____
Methods/Technology	_____
Other Characteristics	_____

## Price Schedule Forms

*[The Bidder shall fill in these Price Schedule Forms in accordance with the instructions indicated. The list of line items in column 1 of the **Price Schedules** shall coincide with the List of Goods and Related Services specified by the Purchaser in the Schedule of Requirements.]*

## Price Schedule: Goods Manufactured Outside the Purchaser’s Country, to be Imported

(Group C bids, goods to be imported)							Date: _____
Currencies in accordance with ITB Sub-Clause 15							IPC No: _____
							Alternative No: _____
							Page N° _____ of _____
1	2	3	4	5	6	7	8
Line Item N°	Description of Goods	Country of Origin	Delivery Date at named place of destination	Quantity and physical unit	Unit price CIP <i>[insert named place of destination]</i> in accordance with ITB 14.8(b)(i)	Sales and other taxes paid or payable per item if Contract is awarded, in accordance with ITB 14.8(b)(ii)	Total Price per Line item (Col. 5x6)
<i>[insert number of the item]</i>	<i>[insert name of good]</i>	<i>[insert country of origin of the Good]</i>	<i>[insert quoted Delivery Date]</i>	<i>[insert number of units to be supplied and name of the physical unit]</i>	<i>[insert unit price CIP per unit]</i>	<i>[insert sales and other taxes paid or payable per item if Contract is awarded]</i>	<i>[insert total price of the line item]</i>
<b>Total Price</b>							

Name of Bidder *[insert complete name of Bidder]* Signature of Bidder *[signature of person signing the Bid]* Date *[Insert Date]*

## Price Schedule: Goods Manufactured Outside the Purchaser's Country, Already Imported

(Group C bids, Goods already imported)								Date: _____
Currencies in accordance with ITB Sub-Clause 15								IPC No: _____
Currencies in accordance with ITB Sub-Clause 15								Alternative No: _____
Currencies in accordance with ITB Sub-Clause 15								Page N° _____ of _____
1	2	3	4	5	6	7	8	9
Line Item N°	Description of Goods	Country of Origin	Delivery Date at named place of destination	Quantity and physical unit	CIP Unit price excluding Custom Duties and Import Taxes paid, in accordance with ITB 14.8(c)(i)	Custom Duties and Import Taxes paid per unit in accordance with ITB 14.8(c)(ii), [to be supported by documents]	Sales and other taxes paid or payable per item if Contract is awarded, in accordance with ITB 14.8(c)(iii)	Total Price per line item (Col. 5x6)
<i>[insert number of the item]</i>	<i>[insert name of Goods]</i>	<i>[insert country of origin of the Good]</i>	<i>[insert quoted Delivery Date]</i>	<i>[insert number of units to be supplied and name of the physical unit]</i>	<i>[insert unit price per unit]</i>	<i>[insert custom duties and taxes paid per unit]</i>	<i>[insert sales and other taxes payable per item if Contract is awarded]</i>	<i>[insert total price per line item]</i>
<b>Total Bid Price</b>								

Name of Bidder *[insert complete name of Bidder]* Signature of Bidder *[signature of person signing the Bid]* Date *[insert date]*

## Price Schedule: Goods Manufactured in the Purchaser’s Country

Purchaser’s Country _____		(Group A and B bids)  Currencies in accordance with ITB Sub-Clause 15				Date: _____ _____ IPC No: _____ Alternative No: _____ Page N° _____ of _____	
1	2	3	4	5	6*	7	8
Line Item N°	Description of Goods	Delivery Date at named place of destination	Quantity and physical unit	Unit price CIP	Cost of local labor, raw materials, transportation, insurance and components with origin in the Purchaser’s Country % of Col. 5	Sales and other taxes payable per line item if Contract is awarded, in accordance with ITB 14.8(a)(ii)	Total Price per line item (Col. 4 x 5)
<i>[insert number of the item]</i>	<i>[insert name of Good]</i>	<i>[insert quoted Delivery Date]</i>	<i>[insert number of units to be supplied and name of the physical unit]</i>	<i>[insert CIP unit price]</i>	<i>[Insert cost of local labor, raw material, transportation, insurance and components from within the Purchase’s country as a % of the CIP price per line item]</i>	<i>[insert sales and other taxes payable per line item if Contract is awarded]</i>	<i>[insert total price per item]</i>
<b>Total Price</b>							

- Only in case of Domestic Preference applies

Name of Bidder *[insert complete name of Bidder]* Signature of Bidder *[signature of person signing the Bid]* Date *[insert date]*

## Price Details Schedule for components

### Lot 1

No	Description	Unit	Quantity	Unit price CIP	Total price
A1	<b>Servers</b>				
A11	Server with at least 2 CPUs (provide 10 CPUs as an option). Each CPU: 12 cores each, 96 GB RAM	Unit			
A12	Fast access local storage: Hard disk SATA SSD, 1,8 TB SSD, RAID1 (VMware boot compliant)	Unit			
B1	<b>Network, security &amp; storage</b>				
B11	Internal network management: HP Switch 24 ports, 1Gb/s Hot-standby configuration for High Availability	Unit			
B12	External network protection, VPN access: Firewall 8x 1Gb/S. Hot-standby configuration for High Availability	Unit			
B13	Shared storage solution: NAS enclosure - 4 bays	Unit			
B14	Shared storage capacity (storage for backup, update repository, ...): NAS storage: 14 TB, SATA raid protected	Unit			
B15	Shared storage capacity (for virtual machines, ...): SAN Storage	Unit			
C1	<b>Client station</b>				
C11	High performance workstation for operators: 8 cores intel CPU, 16 Go RAM, 16 Go Ram 512 Go SSD Hard drive	Unit			

No	Description	Unit	Quantity	Unit price CIP	Total price
	4 display port graphic card Windows 10 Pro				
C12	Screen display for workstations: 24" led display screen 1920x1200	Unit			
C13	High performance video card	Unit			
C14	UPS adapted per client station	Unit			
D1	<b>Software licences</b>				
D11	COTS Licences: OS and middleware	Unit			
D12	Server Licenses	Unit			
D13	Licenses of Core application software	Unit			
D14	Licenses for additional modules, if any	Unit			
D15	Client License	Unit			
E1	<b>Infrastructure</b>				
E11	Rack cabinet	Unit			
E12	Set of cables	Unit			
E13	UPS (Uninterruptible Power Supply) for servers	Unit			
E14	PDU (Power Distribution Unit) for servers	Unit			
E15	Spare parts	Unit			
E16	Power plug and socket(outlets)	Unit			

No	Description	Unit	Quantity	Unit price CIP	Total price
F1	<b>Training and acceptance test</b>				
F11	Factory Acceptance Test (FAT)	Day			
F12	On-site Administration training (option for one training at regional centre for all NMHSs)	Day			
F13	On-site Training for Forecaster (Option for one training at regional training centre for all NMHSs)	Day			
F14	Site Acceptance Test (SAT) and training	Day			
	<b>Total price of components CIP</b>				
	<b>Other costs (transportation, insurance, etc...) if applicable</b>				
	<b>General Total</b>				

Name of Bidder [insert complete name of Bidder] Signature of Bidder [signature of person signing the Bid] Date [insert date]



## Price Details Schedule for components

### Lot 2

No	Description	Unit	Quantity	Unit price CIP	Total price
A2	<b>Servers</b>				
A21	Server with at least 2 CPUs (provide 10 CPUs as an option). Each CPU: 12 cores each, 96 GB RAM	Unit			
A22	Fast access local storage: Hard disk SATA SSD, 1,8 TB SSD, RAID1 (VMware boot compliant)	Unit			
B2	<b>Network, security &amp; storage</b>				
B21	Internal network management: HP Switch 24 ports, 1Gb/s Hot-standby configuration for High Availability	Unit			
B22	External network protection, VPN access: Firewall 8x 1Gb/S. Hot-standby configuration for High Availability	Unit			
B23	Shared storage solution: NAS enclosure - 4 bays	Unit			
B24	Shared storage capacity (storage for backup, update repository, ...): NAS storage: 14 TB, SATA raid protected	Unit			
B25	Shared storage capacity (for virtual machines, ...): SAN Storage	Unit			
C2	<b>Client station</b>				
C21	High performance workstation for operators: 8 cores intel CPU, 16 Go RAM, 16 Go Ram	Unit			

No	Description	Unit	Quantity	Unit price CIP	Total price
	512 Go SSD Hard drive 4 display port graphic card Windows 10 Pro				
C22	Screen display for workstations: 24" led display screen 1920x1200	Unit			
C23	High performance video card	Unit			
C24	UPS adapted per client station	Unit			
D2	<b>Software licences</b>				
D21	COTS Licences: OS and middleware	Unit			
D22	Server Licenses: provide open source and free applications software	Unit			
D23	Licenses of Core application software (provide open source and free applications software)	Unit			
D24	Licenses for additional modules, if any	Unit			
D25	Client License (provide open source and free applications software)	Unit			
E2	<b>Infrastructure</b>				
E21	Rack cabinet	Unit			
E22	Set of cables	Unit			
E23	UPS (Uninterruptible Power Supply) for servers	Unit			
E24	PDU (Power Distribution Unit) for servers	Unit			
E25	Spare parts	Unit			

No	Description	Unit	Quantity	Unit price CIP	Total price
E26	Power plug and socket(outlets)	Unit			
F2	<b>Training and acceptance test</b>				
F21	Factory Acceptance Test (FAT)	Day			
F22	On-site Administration training (option for one training at regional centre for all NMHSs)	Day			
F23	On-site Training for Forecaster (Option for one training at regional training centre for all NMHSs)	Day			
F24	Site Acceptance Test (SAT) and training	Day			
	<b>Total price of components CIP</b>				
	<b>Other costs (transportation, insurance, etc...) if applicable</b>				
	<b>General Total</b>				

## Price and Completion Schedule - Related Services

Currencies in accordance with ITB Clause 15						Date: _____	
						IPC No: _____	
						Alternative No: _____	
						Page N° _____ of _____	
1	2	3	4	5	6	7	8
Service N°	Description of Services	Country of Origin	Delivery Date at named place of destination	Quantity and physical unit	Unit Price net of duties and applicable taxes, in accordance with ITB 14.8 (d) (i)	Duties and other taxes payable per line item if Contract is awarded, in accordance with ITB 14.8(d)(ii)	Total Price per Service net of duties and taxes (Col.5 x 6)
<i>[insert number of the Service]</i>	<i>[insert name of Services]</i>	<i>[insert country of origin of the Services]</i>	<i>[insert delivery date at named place of destination]</i>	<i>[insert number of units to be supplied and name of the physical unit]</i>	<i>[insert unit price per item]</i>	<i>[insert duties and other taxes payable per line item if Contract is awarded]</i>	<i>[insert total price per item]</i>
01	Servicing and maintenance			3 years			
02	List of spare parts			3 years			
03	List of consumables			3 years			
<b>Total Bid Price</b>							

Name of Bidder *[insert complete name of Bidder]* Signature of Bidder *[signature of person signing the Bid]* Date *[insert date]*

## Form of Bid Security (Bank Guarantee)

*[The bank shall fill in this Bank Guarantee Form in accordance with the instructions indicated.]*

**Beneficiary:** \_\_\_\_\_

**Invitation for Bids No:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**BID GUARANTEE No.:** \_\_\_\_\_

**Guarantor:** \_\_\_\_\_

We have been informed that \_\_\_\_\_ (hereinafter called "the Applicant") has submitted or will submit to the Beneficiary its bid (hereinafter called "the Bid") for the execution of \_\_\_\_\_ under Invitation for Bids No. \_\_\_\_\_ ("the IFB").

Furthermore, we understand that, according to the Beneficiary's conditions, bids must be supported by a bid guarantee.

At the request of the Applicant, we, as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of \_\_\_\_\_ (\_\_\_\_\_) upon receipt by us of the Beneficiary's first demand, supported by the Beneficiary's statement, whether in the demand itself or a separate signed document accompanying or identifying the demand, stating that either the Applicant:

- (a) Has withdrawn its Bid during the period of bid validity set forth in the Applicant's Bid Submission Form ("the Bid Validity Period"), or any extension thereto provided by the Applicant; or
- (b) Having been notified of the acceptance of its Bid by the Beneficiary during the Bid Validity Period or any extension thereto provided by the Applicant, (i) has failed to execute the contract agreement, or (ii) has failed to furnish the performance security, in accordance with the Instructions to Bidders ("ITB") of the Beneficiary's bidding document.

This guarantee will expire: (a) if the Applicant is the successful bidder, upon our receipt of copies of the contract agreement signed by the Applicant and the performance security issued to the Beneficiary in relation to such contract agreement; or (b) if the Applicant is not the successful bidder, upon the earlier of (i) our receipt of a copy of the Beneficiary's notification to the Applicant of the results of the bidding process; or (ii) twenty-eight days after the end of the Bid Validity Period.

Consequently, any demand for payment under this guarantee must be received by us at the office indicated above on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No. 758.

\_\_\_\_\_ *[signature(s)]*



## Form of Bid-Securing Declaration

*[The Bidder shall fill in this Form in accordance with the instructions indicated.]*

Date: *[date (as day, month and year)]*  
 Bid No.: *[number of bidding process]*  
 Alternative No.: *[identification No if this is a Bid for an alternative]*

To: *[complete name of Purchaser]*

We, the undersigned, declare that:

We understand that, according to your conditions, bids must be supported by a Bid-Securing Declaration.

We accept that we will automatically be suspended from being eligible for bidding in any contract with the Purchaser for the period of time of *five years* starting on *following resignation date*, if we are in breach of our obligation(s) under the bid conditions, because we:

- (a) Have withdrawn our Bid during the period of bid validity specified in the Form of Bid, or any extension thereto provided by us; or
- (b) Having been notified of the acceptance of our Bid by the Purchaser during the period of bid validity or any extension thereto accepted by us, (i) fail or refuse to execute the Contract; or (ii) fail or refuse to furnish the Performance Security, if required in accordance with the ITB.

We understand this Bid Securing Declaration shall expire if we are not the successful Bidder, upon the earlier of (i) our receipt of your notification to us of the name of the successful Bidder; or (ii) twenty-eight days after the expiration of our Bid.

Name of the Bidder\* \_\_\_\_\_

Name of the person duly authorized to sign the Bid on behalf of the Bidder\*\* \_\_\_\_\_

Title of the person signing the Bid \_\_\_\_\_

Signature of the person named above \_\_\_\_\_

Date signed \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_

\*: In the case of the Bid submitted by joint venture specify the name of the Joint Venture as Bidder

\*\* : Person signing the Bid shall have the power of attorney given by the Bidder attached to the Bid

*[Note: In case of a Joint Venture, the Bid-Securing Declaration must be in the name of all members of the Joint Venture that submits the bid.]*

## Manufacturer's Authorization

*[The Bidder shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Manufacturer and should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer. The Bidder shall include it in its bid, if so indicated in the **BDS**.]*

Date: *[insert date (as day, month and year) of Bid Submission]*

IPC No.: *[insert number of bidding process]*

Alternative No.: *[insert identification No if this is a Bid for an alternative]*

To: *[insert complete name of Purchaser]*

### WHEREAS

We *[insert complete name of Manufacturer]*, who are official manufacturers of *[insert type of goods manufactured]*, having factories at *[insert full address of Manufacturer's factories]*, do hereby authorize *[insert complete name of Bidder]* to submit a bid the purpose of which is to provide the following Goods, manufactured by us:  
*[insert name and or brief description of the Goods]*,

and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty in accordance with Clause 28 of the General Conditions of Contract, with respect to the Goods offered by the above firm.

Signed: *[insert signature(s) of authorized representative(s) of the Manufacturer]*

Name: *[insert complete name(s) of authorized representative(s) of the Manufacturer]*

Title: *[insert title]*

Dated on \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_ *[insert date of signing]*



## Section V. Eligibility Criteria

### Eligibility in AFD-Financed Procurement

1. Financing allocated by the AFD to a Contracting Authority has been entirely untied since 1<sup>st</sup> January 2002. To the exception of any equipment or any sector which is subject to an embargo by the United Nations, the United States of America, the European Union or France, all goods, works, plants, consulting services and non-consulting services are eligible for the AFD financing regardless of the country of origin of the supplier, contractor, subcontractor, consultant or subconsultant inputs or resources used in the implementation processes. The Contracting Authority means the Purchaser, the Employer, the Client, as the case may be, for the procurement of goods, works, plants, consulting services or non-consulting services.
2. Natural or legal persons (including all members of a joint venture or any of their suppliers, contractors, subcontractors, consultants or subconsultants) shall not be awarded an AFD-financed contract if, on the date of submission of an application, a bid or a proposal, or on the date of award of a contract, they:
  - 2.1) Are bankrupt or being wound up or ceasing their activities, are having their activities administered by the courts, have entered into receivership, or are in any analogous situation arising from a similar procedure;
  - 2.2) Have been:
    - a. convicted, within the past five years by a court decision, which has the force of *res judicata* in the country where the contract is implemented, of fraud, corruption or of any other offense committed during a procurement process or performance of a contract, unless they provide supporting information together with their Statement of Integrity (Form available as Appendix to the Application, Bid or Proposal Submission Form) which shows that this conviction is not relevant in the context of this contract;
    - b. subject to an administrative sanction within the past five years by the European Union or by the competent authorities of the country where they are constituted, for fraud, corruption or for any other offense committed during a procurement process or performance of a contract, unless they provide supporting information together with their Statement of Integrity (Form available as Appendix to the Application, Bid or Proposal Submission Form) which shows that this sanction is not relevant in the context of this contract;
    - c. convicted, within the past five years by a court decision, which has the force of *res judicata*, of fraud, corruption or of any other offense committed during the procurement process or performance of an AFD-financed contract;
  - 2.3) Are listed for financial sanctions by the United Nations, the European Union, The USA and/or France for the purposes of fight-against-terrorist financing or threat to international peace and security;
  - 2.4) Have been subject within the past five years to a contract termination fully settled against them for significant or persistent failure to comply with their contractual

- obligations during contract performance, unless this termination was challenged and dispute resolution is still pending or has not confirmed a full settlement against them;
- 2.5) Have not fulfilled their fiscal obligations regarding payments of taxes in accordance with the legal provisions of either the country where they are constituted or the Contracting Authority's country;
- 2.6) Are subject to an exclusion decision of the World Bank and are listed on the website <http://www.worldbank.org/debarr>, unless they provide supporting information together with their Statement of Integrity (Form available as Appendix to the Application, Bid or Proposal Submission Form) which shows that this exclusion is not relevant in the context of this contract;
- 2.7) Have created false documents or committed misrepresentation in documentation requested by the Contracting Authority as part of the procurement process of this Contract.
3. State-owned entities may compete only if they can establish that they (i) are legally and financially autonomous, and (ii) operate under commercial law. To be eligible, a state-owned entity shall establish to the AFD's satisfaction, through all relevant documents, including its Charter and other information the AFD may request, that it: (i) is a legal entity separate from their state (ii) does not currently receive substantial subsidies or budget support; (iii) operates like any commercial enterprise, and, inter alia, is not obliged to pass on its surplus to their state, can acquire rights and liabilities, borrow funds and be liable for repayment of its debts, and can be declared bankrupt.

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## **Section VI. AFD Policy - Prohibited Practices— environmental and social responsibility**

### **1. Corrupt and Fraudulent Practices**

The Contracting Authority and the suppliers, contractors, subcontractors, consultants or subconsultants must observe the highest standard of ethics during the procurement process and performance of the contract. The Contracting Authority means the Purchaser, the Employer, the Client, as the case may be, for the procurement of goods, works, plants, consulting services or non-consulting services.

By signing the Statement of Integrity the suppliers, contractors, subcontractors, consultants or subconsultants declare that (i) “it did not engage in any practice likely to influence the contract award process to the Contracting Authority’s detriment, and that it did not and will not get involved in any anti-competitive practice”, and that (ii) “the procurement process and the performance of the contract did not and shall not give rise to any act of corruption or fraud”.

Moreover, the AFD requires including in the Procurement Documents and AFD-financed contracts a provision requiring that suppliers, contractors, subcontractors, consultants or subconsultants will permit the AFD to inspect their accounts and records relating to the procurement process and performance of the AFD-financed contract, and to have them audited by auditors appointed by the AFD.

The AFD reserves the right to take any action it deems appropriate to check that these ethics rules are observed and reserves, in particular, the rights to:

- (a) Reject a proposal for a contract award if it is established that during the selection process the bidder or consultant that is recommended for the award has been convicted of corruption directly or by means of an agent, or has engaged in fraud or anti-competitive practices in view of being awarded the Contract;
- (b) Declare mis procurement when it is established that, at any time, the Contracting Authority, the suppliers, contractors, subcontractors, consultants or subconsultants their representatives have engaged in acts of corruption, fraud or anti-competitive practices during the procurement process or performance of the contract without the Contracting Authority having taken appropriate action in due time satisfactory to the AFD to remedy the situation, including by failing to inform the AFD at the time they knew of such practices.

The AFD defines, for the purposes of this provision, the terms set forth below as follows:

- (a) Corruption of a Public Officer means:
  - (i) The act of promising, offering or giving to a Public Officer, directly or indirectly, an undue advantage of any kind for himself or for another person or entity, for such Public Officer to act or refrain from acting in his official capacity; or
  - (ii) The act by which a Public Officer solicits or accepts, directly or indirectly, an undue advantage of any kind for himself or for another person or entity, for such Public Officer to act or refrain from acting in his official capacity.
- (b) A Public Officer shall be construed as meaning:
  - (i) Any person who holds a legislative, executive, administrative or judicial mandate (within the country of the Contracting Authority) regardless of whether that person was nominated or

- elected, regardless of the permanent or temporary, paid or unpaid nature of the position and regardless of the hierarchical level the person occupies;
- (ii) Any other person who performs a public function, including for a State institution or a State-owned company, or who provides a public service;
  - (iii) Any other person defined as a Public Officer by the national laws of the country of the Contracting Authority.
- (c) Corruption of a private person means:
- (i) The act of promising, offering or giving to any person other than a Public Officer, directly or indirectly, an undue advantage of any kind for himself or for another person or entity, for such person to perform or refrain from performing any act in breach of its legal, contractual or professional obligations; or
  - (ii) The act by which any person other than a Public Officer solicits or accepts, directly or indirectly, an undue advantage of any kind for himself or for another person or entity, for such person to perform or refrain from performing any act in breach of its legal, contractual or professional obligations;
- (d) Fraud means any dishonest conduct (act or omission), whether or not it constitutes a criminal offence, deliberately intended to deceive others, to intentionally conceal items, to violate or vitiate consent, to circumvent legal or regulatory requirements and/or to violate internal rules in order to obtain illegitimate profit.
- (e) Anti-competitive practices mean:
- (i) Any concerted or implied practices which have as their object or effect the prevention, restriction or distortion of competition within a marketplace, especially where they (i) limit access to the marketplace or free exercise of competition by other undertakings, (ii) prevent free, competition-driven price determination by artificially causing price increases or decreases, (iii) restrict or control production, markets, investments or technical progress; or (iv) divide up market shares or sources of supply;
  - (ii) Any abuse by one undertaking or a group of undertakings which hold a dominant position on an internal market or on a substantial part of it;
  - (iii) Any practice whereby prices are quoted or set unreasonably low, the object of which is to eliminate an undertaking or any of its products from a market or to prevent it from entering the market.

## **2. Environmental and social responsibility**

In order to promote sustainable development, the AFD seeks to ensure that internationally recognised environmental and social standards are complied with. Candidates for AFD-financed contracts shall consequently undertake in the Statement of Integrity to:

- (i) Comply with and ensure that all their subcontractors or subconsultants comply with international environmental and labour standards, consistent with applicable law and regulations in the country of implementation of the contract, including the fundamental conventions of the International Labour Organisation (ILO) and international environmental treaties;

- (ii) Implement environmental and social risks mitigation measures when specified in the environmental and social management plan (ESMP) provided by the Contracting Authority.
- (iii) The tenderer must put in place specific measures to reduce energy consumption of the system, pollution from equipment provided with optimal screen light protecting staff vision. Applications maximizing processes automation reducing staff time spend on computer screens are expected to be highlighted by bidders.

The Supplier will undertake and report on life cycle analyses of the equipment to be proposed in relation to the carbon footprint and greenhouse gases (GHGs) that will be emitted during the production and transportation of the equipment.

**3. Equal opportunities and inclusion in the team**

As part of the execution of these services, we encourage the tenderer to integrate gender considerations, in accordance with the principles established by the ILO and the commitments made by the IOC member countries through the accession and ratification of frameworks and conventions on equality between women and men. The tenderer undertakes to comply with these, including:

- Taking into account parity, or at least acceptable representation, in the composition of bidding and implementation teams.
- The application of equal opportunities and inclusion policies, favouring the integration of women at all levels of contract performance.
- The breakdown of data relating to the composition of teams by sex and by professional category, enabling gender equality to be monitored throughout the performance of the contract.

**4. Awareness and prevention of harassment and gender-based violence (GBV)**

The tenderer must put in place specific measures to prevent harassment, discrimination and gender-based violence, particularly when installing equipment at the destination. These measures include

- Raising awareness among employees, both men and women, about gender issues, non-discrimination, and the fight against harassment and GBV.
- Implementing preventive measures, in particular the dissemination of codes of conduct and the introduction of sanctions in the event of non-compliance with commitments in terms of equality and the prevention of GBV.

The tenderer will be required to provide situations including gender monitoring indicators (male/female breakdown, awareness-raising actions carried out, incidents reported and corrective measures taken).

## **PART 2 – Supply Requirements**

# Section VII. Schedule of Requirements

## Contents

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## 1. List of Goods and Delivery Schedule

*[The Purchaser shall fill in this table, with the exception of the column “Bidder’s offered Delivery date” to be filled by the Bidder. The item list should be identical to the Price Schedule (Section IV)]*

Line Item N°	Description of Goods	Quantity	Physical unit	Named place of Destination as specified in BDS	Delivery (as per Incoterms) Date		
					Earliest Delivery Date at named place of destination	Latest Delivery Date at named place of destination	Bidder’s offered Delivery date at named place of destination [ <i>to be provided by the bidder</i> ]
	<b>Lot 1</b>						
01	Comoros forecaster workstation	01	Package	Moroni, Comoros	120 days after kick off	200 days after kick off	
02	Mauritius forecaster workstation	01	Package	Vacoas, Mauritius	120 days after kick off	200 days after kick off	
03	Seychelles forecaster workstation	01	Package	Mahe, Seychelles	120 days after kick off	200 days after kick off	
04	Regional Training center forecaster workstation	01	Package	Vacoas, Mauritius	120 days after kick off	200 days after kick off	
	<b>Lot 2</b>						
01	Madagascar forecaster workstation with open source and free solutions	01	Package	Antananarivo, Madagascar	120 days after kick off	200 days after kick off	

A workstation is made up of several components as described in the following table:  
(See technical specifications in section VII of this pack).



## 2. List of Components for a workstation

### Lot 1

No	Description	Unit	Total quantity for all workstations
A1	<b>Servers</b>		
A11	Server with at least 2 CPUs (provide 10 CPUs as an option). Each CPU: 12 cores each, 96 GB RAM	Unit	8
A12	Fast access local storage: Hard disk SATA SSD, 1,8 TB SSD, RAID1 (VMware boot compliant)	Unit	8
B1	<b>Network, security &amp; storage</b>		
B11	Internal network management: HP Switch 24 ports, 1Gb/s Hot-standby configuration for High Availability	Unit	8
B12	External network protection, VPN access: Firewall 8x 1Gb/S. Hot-standby configuration for High Availability	Unit	8
B13	Shared storage solution: NAS enclosure - 4 bays	Unit	4
B14	Shared storage capacity (storage for backup, update repository, ...): NAS storage: 14 TB, SATA raid protected	Unit	16
B15	Shared storage capacity (for virtual machines, ...): SAN Storage	Unit	4
C	<b>Client station</b>		
C11	High performance workstation for operators:	Unit	14

No	Description	Unit	Total quantity for all workstations
	8 cores intel CPU, 16 Go RAM, 16 Go Ram 512 Go SSD Hard drive 4 display port graphic card Windows 10 Pro		
C12	Screen display for workstations: 24" led display screen 1920x1200	Unit	42
C13	High performance video card	Unit	14
C14	UPS adapted per client station	Unit	14
<b>D1</b>	<b>Software licences</b>		
D11	COTS Licences: OS and middleware	Unit	As needed
D12	Server Licenses	Unit	4
D13	Licenses of Core application software	Unit	4
D14	Licenses for additional modules, if any	Unit	
D15	Client Licenses	Unit	14
<b>E1</b>	<b>Infrastructure</b>		
E11	Rack cabinet	Unit	4
E12	Set of cables	Unit	4
E13	UPS (Uninterruptible Power Supply) for servers	Unit	8

No	Description	Unit	Total quantity for all workstations
E14	PDU (Power Distribution Unit) for servers	Unit	8
E15	Spare parts	Unit	4
E16	Power plug and socket(outlets)	Unit	4
<b>F1</b>	<b>Training and acceptance test</b>		
F11	Factory Acceptance Test (FAT)	Days	3
F12	On-site Administration training (option for one training at regional centre for all NMHSs)	Days	15
F13	On-site Training for Forecaster (Option for one training at regional training centre for all NMHSs)	Days	15
F14	Site Acceptance Test (SAT) and training	Days	9

## Lot 2

No	Description	Unit	Quantity for the workstation
A2	<b>Servers</b>		
A21	Server with at least 2 CPUs (provide 10 CPUs as an option). Each CPU: 12 cores each, 96 GB RAM	Unit	2
A22	Fast access local storage: Hard disk SATA SSD, 1,8 TB SSD, RAID1 (VMware boot compliant)	Unit	2
B2	<b>Network, security &amp; storage</b>		
B21	Internal network management: HP Switch 24 ports, 1Gb/s	Unit	2

No	Description	Unit	Quantity for the workstation
	Hot-standby configuration for High Availability		
B22	External network protection, VPN access: Firewall 8x 1Gb/S. Hot-standby configuration for High Availability	Unit	2
B23	Shared storage solution: NAS enclosure - 4 bays	Unit	1
B24	Shared storage capacity (storage for backup, update repository, ...): NAS storage: 14 TB, SATA raid protected	Unit	4
B25	Shared storage capacity (for virtual machines, ...): SAN Storage	Unit	1
<b>C2</b>	<b>Client station</b>		
C21	High performance workstation for operators: 8 cores intel CPU, 16 Go RAM, 16 Go Ram 512 Go SSD Hard drive 4 display port graphic card Windows 10 Pro	Unit	3
C22	Screen display for workstations: 24" led display screen 1920x1200	Unit	9
C23	High performance video card	Unit	3
C24	UPS adapted per client station	Unit	3
<b>D2</b>	<b>Software licences</b>		
D21	COTS Licences: OS and middleware	Unit	As needed
D22	Server Licenses: provide open source and free applications software for Madagascar which can be an option for other countries	Unit	1

No	Description	Unit	Quantity for the workstation
D23	Licenses of Core application software : provide open source and free applications software for Madagascar which can be an option for other countries	Unit	1
D24	Licenses for additional modules, if any	Unit	
D25	Client License: provide open source and free applications software for Madagascar which can be an option for other countries	Unit	3
<b>E2</b>	<b>Infrastructure</b>		
E21	Rack cabinet	Unit	1
E22	Set of cables	Unit	1
E23	UPS (Uninterruptible Power Supply) for servers	Unit	2
E24	PDU (Power Distribution Unit) for servers	Unit	2
E25	Spare parts	Unit	1
E26	Power plug and socket(outlets)	Unit	1
<b>F2</b>	<b>Training and acceptance test</b>		
F21	Factory Acceptance Test (FAT)	Days	3
F22	On-site Administration training (option for one training at regional centre for all NMHSs)	Days	5
F23	On-site Training for Forecaster (Option for one training at regional training centre for all NMHSs)	Days	5
F24	Site Acceptance Test (SAT) and training	Days	3

### 3. List of Related Services and Completion Schedule

For each lot

Service	Description of Service	Quantity <sup>1</sup>	Physical Unit	Place where Services shall be performed	Final Completion Date(s) of Services
01	<b>Training and acceptance tests</b>				
	Factory Acceptance Test (FAT)	3	day	At the supplier site	120 days after kick off
	On-site Training for workstation administrators	5	day /place	Mauritius	240 days after kick off
	On-site Training for Forecasters	5	day /place	Mauritius	240 days after kick off
	Site Acceptance Test (SAT)	5	day /place	Comoros, Madagascar, Mauritius, Seychelles	240 days after kick off
02	<b>Related services</b>				
02.1	Servicing and maintenance (to be described by the bidder)	3	year	Comoros, Madagascar, Mauritius, Seychelles	Three years after installation
02.2	List of spare parts (to be described by the bidder)	3	year	Comoros, Madagascar, Mauritius, Seychelles	Three years after installation
02.3	List of consumables (to be described by the bidder)	3	year	Comoros, Madagascar, Mauritius, Seychelles	Three years after installation
03	<b>Equipment guarantee</b>			Comoros, Madagascar, Mauritius, Seychelles	One year after acceptance (with two years as option)

1. If applicable

### 3. Technical Specifications

## Glossary

<b>Term or Abbreviation</b>	<b>Description</b>
AFD	Agence Française de Développement ( French Development Agency)
API	An application programming interface (API) is a computing interface which defines interactions between multiple software intermediaries
AMSS	Automatic Message Switching System
CONTRACTOR	“Contractor” means the person named as Contractor in the Letter of Tender accepted by the Employer and the legal successors in title to this person
DRC	Disaster Recovery Centre
ECMWF	European Centre for Medium-Range Weather Forecasts
EMPLOYER	“Employer” means the person named as Employer in the Contract Data and the legal successors in title to this person
ENGINEER	Employer Representative. In this project, the Employer is acting as the Employer’s Representative.
ESHS	Acronym for Environment, Social, Health and Safety
ESMF	Acronym for Environment and Social Management Framework
ESMP	Acronym for Environment and Social Management Plan
FAT	Factory Acceptance Tests
FHO	Final Hand Over
FT	Factory Training
GFS	NOAA (National Oceanic and Atmospheric Administration) Global Numerical Weather Model NOAA is the National Meteorological Service of United States
GTS	Global Telecommunication System

<b>Term or Abbreviation</b>	<b>Description</b>
GUI	Graphical User Interface
HPC	High performance computer
ICD	Interface Control Document
KPI	Acronym for Key performance Indicator
LT	Local Training
NWP	Numerical Weather Prediction
PDS	Project Design Study
PMP	Project Management Plan
PHO	Provisional Hand Over or Project Technical Completion
PWS	Public Weather Services
RODS	Remote Operational Display systems
RTH	Regional Telecommunication Hub
SAT	Site Acceptance Tests
SOP	Standard Operation Procedure
WIGOS	WMO Integrated Global Observing System (WIGOS) provides a framework for the integration and sharing of observational data from National Meteorological and Hydrological Services (NMHSs) and other sources.
WIS	WMO Information System
WMO	World Meteorological Organization



## **1 General Information**

The Indian Ocean Commission (IOC) is an intergovernmental organization comprising five Member States: The Union of the Comoros, France on behalf of Reunion, Madagascar, Mauritius, and Seychelles. Created by the Port Louis Declaration in 1982, the IOC was institutionalized in the Seychelles in 1984 by the General Cooperation Agreement, better known as the "Victoria Agreement".

To address their vulnerability to numerous weather and climate hazards, including floods, droughts, storms, tropical cyclones and storm surges, IOC island states need better climate data and early warning systems to better plan for climate change adaptation in the region and to reduce information inequalities, faced by several groups of population like women and elderly with low literacy, who are more vulnerable to and impacted by climate change

The development objective of the HYDROMET project is to strengthen the resilience and adaptive capacity of regional and national communities to the impacts of climate change in the southwest Indian Ocean Island states. This project is funded by the French Development Agency, the European Union, and the Green Climate Fund.

Through the agreements between AFD and IOC (AFD CZZ 2343 01 Z and EU CZZ 2343 03, dated November 26, 2021, and AFD, GCF and IOC (AFD CZZ 3202 01 U dated December 17, 2021 B, IOC has been designated to serve as the Executing Entity ("EE") of the Hydromet Project. IOC is responsible for the management and monitoring of the project according to the procedures indicated in the management manual.

## 2 HYDROMET project

### 2.1 HYDROMET objectives

The objective of this 5 years project “named HydroMET” is to strengthen the adaptive capacity and climate resilience of vulnerable communities, especially women, and economic sectors in Comoros, Madagascar, Mauritius, and Seychelles. This objective will be achieved through:

- a) Institutional strengthening, reforms, and capacity building at regional and national levels, and public-private engagement;
- b) Improving and modernising hydro-meteorological systems and services that will provide users with timely, reliable, and accurate information to prevent, mitigate and adapt to climate-related risks and climate change and;
- c) Strengthening the use of climate services, establishing a Multi Hazard impact-based forecast and early warning Advisory (MH-IBF-EWA) supported by a knowledge and decision support system, and improving capacity to implement a people-centred multi-hazard impact-based forecast and early warning services (MH-IBF-EWS).
- d) Increasing women’s access to climate-related information and participating in designing of climate services, in particular hydro-meteorological services

The HydroMET project seeks to establish a comprehensive weather and climate information system, in particular better early warning systems for the whole Southwest Indian Ocean region and maritime domain and to improve the dissemination of the related information to development sectors including aviation, disaster risk reduction, agriculture, tourism, fisheries and other maritime activities, and the general public.

### 2.2 Objective of the HYDROMET Forecaster Workstation

The System to be supplied is intended to be dedicated to professional forecasting activities. It shall allow for processing and visualization of all meteorological data required for nowcasting and forecasting activities. Data on the earth system from satellite, radar, surface and upper observing stations, models... are collected, processed and related services provided to users. When available, open source or free licensed APIs, software or applications supporting different functions and sectors described herein should be proposed as alternative solutions for least developed countries in need.

For information, Hydromet launched call for Expression of Interest for another tender with 5 lots as below:

- Lot 1: supply and commissioning of observation stations and equipment for observation station sensors calibration
- Lot 2: supply and commissioning of hydrological observation stations
- Lot 3: supply and commissioning of marine and oceanographic observation stations
- Lot 4: supply and commissioning of lightning detection stations
- Lot 5: supply and commissioning of systems for processing, storing, visualization and disseminating hydrometeorological data and services with integration of data and information from the above-mentioned lots.

## 2.3 Site Status and conditions

## 2.3.1 HYDROMET forecaster workstation preliminary Sites List

<b>Lot</b>	<b>Qty</b>	<b>Related Sites</b>
Lot 1: Procurement of Forecaster Workstations for Comoros, Mauritius, Seychelles and the regional training center	04 units	<ol style="list-style-type: none"> <li>1. Vacoas, Mauritius</li> <li>2. Mahé, Seychelles</li> <li>3. Grande Comores</li> </ol>
Lot 2: Procurement of Forecaster Workstation for Madagascar	01 unit	<ol style="list-style-type: none"> <li>1. Antananarivo, Madagascar</li> </ol>

## 2.3.2 Technical Standards and Applicable Regulations

<b>No</b>	<b>Technical Standards and Applicable Regulations Requirements</b>
<b>Information</b>	It is the Employer's intention that national Standards shall be used in design and implementation of the Works for Project, where these are applicable to, and conform with the Outline Design Specifications and where these are compatible with materials, equipment, systems and processes that shall be proposed by the Contractor and approved by the Engineer, under the terms of the Contract.
2.3.2.1	National Standards proposed for design, manufacture: Installation or other stages of the Contract shall be equivalent to applicable European standards (CEN – European committee for Standardization) in order to comply with quality and sustainability standards set as guidelines in the Employer's Requirements.
2.3.2.2	Where the Contractor determines that the application of alternative International Codes or Standards are more applicable for particular materials, equipment or processes and shall be advantageous to the Project then their use shall be permitted providing that they are equal to or better than the applicable European Standards.
2.3.2.3	In the event of a conflict between the provisions of the following documents regarding technical standards and applicable regulations, the order of precedence shall be: <ol style="list-style-type: none"> <li>1. Employer Requirements.</li> <li>2. Technical Proposal from the Contractor.</li> <li>3. Applicable WMO standards including available open-source solutions.</li> <li>4. Applicable national Standards which provide quality and sustainability equivalent to European Standards for the particular materials, equipment, processes, or systems proposed by the Contractor.</li> <li>5. Applicable International Standards.</li> </ol>

No	Technical Standards and Applicable Regulations Requirements
2.3.2.4	When required by the Engineer, all applicated standards shall be submitted to the Employer in the English language for approval except where such standards are specified in the Technical Proposal.

### 3 Phasing

No	Phasing Requirements
3.1	<p>The Contractor shall provide in its proposal a project schedule including the following milestones:</p> <ol style="list-style-type: none"> <li>1. T0 at project kick-off within one month after contract signature</li> <li>2. Delivery of the Initial Design and Study within one month after kick off</li> <li>3. Factory acceptances within two months months after kick off</li> <li>4. Shipments, the contractor is responsible for shipping from the country of origin to the final destination of the goods, including insurance costs within four months after kick off.</li> <li>5. Site acceptances until 6 months after kick off</li> <li>6. Standard warranty &amp; extended warranty with technical support until Project technical completion plus one year</li> <li>7. Project Technical Completion at T0 + 8 months</li> </ol>
3.2	The contractor shall provide the detailed implementation timeline for each item showing the main milestones (kick-off, study and design, Factory acceptance, site acceptance, standard warranty, etc.) in its proposal.

### 4 Transversal Activities and General Requirements

#### 4.1 Contractors Documents

No	Contractor's document Requirements
4.1.1	In order to ensure compliance with the Requirement of Contract and satisfactory programme execution of the works within specified targets, and quality in design, manufacturing and execution of work, a series of Management Plans shall be developed
4.1.2	The Plans and Documents shall be coordinated with each other and shall collectively define, describe, and encompass the Contractor's proposed methods, procedures, processes, organization, sequencing of activities, etc. and shall show how these combine together to assure that the Works truly meet the requirements of the specifications in respect of the mentioned subjects.

<p>4.1.3</p>	<p>All plans and documents shall be submitted as detailed below:</p> <ol style="list-style-type: none"> <li>1. As required in accordance with the Works Program.</li> <li>2. Whenever the development of the Contractor’s designs or planning allows the plan to be developed further.</li> <li>3. In response to comments made by the Employer’s Personnel/Engineer</li> <li>4. Whenever any change occurs that invalidates the information contained in the previously submitted and reviewed document, within 28 days of the occurrence of such change.</li> </ol>
<p>4.1.4</p>	<p>During the project implementation the contractor shall deliver the following documents for approval by The Employer</p> <ol style="list-style-type: none"> <li>1. Project Management plan as described in paragraph 6.2</li> <li>2. Quality assurance plan as described in the paragraph 6.4</li> <li>3. Site Safety Plan during implementation</li> <li>4. Monthly progress report made</li> <li>5. Implementation progress for each activity</li> <li>6. Communicate clearly on current issues and bottlenecks and the proposed solutions to the bottlenecks</li> <li>7. Project updated schedule</li> <li>8. Detailed schedule for next semester</li> <li>9. updated risks</li> <li>10. updated Documentation status</li> <li>11. Minutes of meetings with details about task descriptions and deadlines</li> <li>12. Site survey reports</li> <li>13. Detailed Design Study (functional, technical and operational)</li> <li>14. Construction Design Package for activities with civil works.</li> <li>15. Installation Program prior to a site installation (schedule installation, Pre-requisites, share of Work with Engineer and external entities, installation methods statements)</li> <li>16. Worksite ESMP (Environmental and Social Management Plan).</li> <li>17. Testing and Commissioning Management Plan.</li> <li>18. Acceptance books (2 weeks before the Factory acceptance session, one working day before the Site acceptance session) with result reports (preFAT/ preSAT reports).</li> <li>19. Training plans.</li> <li>20. Training materials.</li> <li>21. Data catalogue.</li> <li>22. Interface Control Documents.</li> <li>23. Operation &amp; Maintenance Plan including Standard Technical Procedures (backups/restore, etc.) and Business Continuity Plan.</li> <li>24. The Operating and Maintenance Manual for each activity/sub activity</li> </ol>

	<p>25. Initial Standard Operational Procedures to be approved and maintained by the Employer operational staff.</p> <p>26. Network architecture (annual update).</p> <p>27. Functional and Technical as-built documents as final Detailed Design Study Project Technical Completion report.</p>
4.1.5	In order to ease review by the Employer, when possible, the submitted documents will have a format which allow modification by the reviewer (e.g. WORD or EXCEL format).
4.1.6	<p>The contractor shall maintain a shared list of:</p> <ol style="list-style-type: none"> <li>1. Pending documents.</li> <li>2. Documents under review.</li> <li>3. Approved documents.</li> </ol>
	<b>Technical As-built documents (applicable only for civil works)</b>
4.1.7	The Contractor shall maintain all records necessary for the preparation of the As-Built Documents. The Contractor shall prepare and submit the As-Built Drawings and the Records which shall become the contents of the As-Built Documents on the Employer agreement.
4.1.8	The As-Built Drawings shall be endorsed by the Contractor as true records of the constructed Works.
4.1.9	The As-Built Records shall include the recorded photographs as being consistent to Progress Reports in the Conditions of Contract.
4.1.10	As part of the As Built Documents, the Contractor shall maintain all records necessary for the financial completion and commissioning of the project.
4.1.11	In addition to the Design Manual, the Contractor shall prepare and submit the Operation and Maintenance Manuals (O&M Manuals) as part of the As-Built Documents.

#### 4.2 Project Management

No	Project Management Requirements
4.2.1	The Contractor shall develop in detail, a logical method of executing the Works taking into account their complex nature and different phases and shall provide a Project Management Plan which reflect the detailed planning undertaken for implementation of the project.
4.2.2	The Project Management Plan (PMP) shall provide a clear over- view of the Contractor's organization, the management system and methods to be used for completion of the Works

No	Project Management Requirements
4.2.3	<p>The contractor shall deliver a project management plan describing:</p> <ol style="list-style-type: none"> <li>1. HYDROMET forecaster workstation project organization, workflow, including reporting and coordination with the Employer.</li> <li>2. The general project schedule and milestones and deliverables.</li> <li>3. The risks management.</li> <li>4. Documentation list and control.</li> </ol>
4.2.4	<p><b>Project organization</b></p> <p>The Project Management Plan shall include a diagram showing the organizational structure for the management of the Contract, with locations, names and position titles of the Contractor’s personnel and their line of control, staff relationship clearly showing the principal organizational interfaces both within the Contractor’s own organization (including sub-contractors of every tier if necessary) and with Other Contractors if necessary and Relevant Authorities, defining how each of these interfaces is to be managed and controlled.</p> <p>The diagram shall include associate organizations and sub-contractors to be engaged in the Execution of the Works and it shall clearly show the individuals and lines of responsibility linking the various groups. It shall also identify the persons designated as a point of contact for the Employer.</p>
4.2.5	<p><b>General project schedule, milestones and deliverables</b></p> <p>Milestones <b>and deliverables</b> shall be an integral part of all Programs and all activities. Sequencing and interrelationships required to achieve each completion obligation shall be shown.</p>
4.2.6	<p>The Project Management Plan shall describe the documentation list and the procedure for documentation control.</p>
4.2.7	<p>The Project Management Plan submitted by the Contractor shall be reviewed by the Employer, who will have the right to seek amendments as deemed necessary.</p>
4.2.8	<p><b>Project requirements management</b></p> <p>In order to facilitate the requirements traceability, the contractor shall provide and regularly update through a Web-based software for tracking HYDROMET Forecaster Workstation requirements.</p> <p>Each requirement description should contain the following information (or equivalent):</p> <ol style="list-style-type: none"> <li>1. Tender/Scope/WBS reference</li> <li>2. Project activity/sub-activity</li> <li>3. Name</li> <li>4. Description</li> <li>5. Importance (mandatory, important, or minor)</li> <li>6. Type of requirement</li> <li>7. Specified in the contract</li> <li>8. Not specified in the contract and commonly agreed</li> <li>9. Not specified and not agreed by supplier</li> </ol>

No	Project Management Requirements
	<p>10. Bogue not related to an existing requirement</p> <p>11. Associated tests</p> <p>12. Status</p> <p>13. NEW: not yet reviewed by the supplier</p> <p>14. CANCELLED: after mutual decision</p> <p>15. TO BE DONE</p> <p>16. ON HOLD (supplier waiting for the Employer clarifications)</p> <p>17. TO BE VALIDATED: delivered and to be tested by the Employer</p> <p>18. VALIDATED: successfully tested by the Employer</p> <p>19. Delivery Version (concerns software requirement)</p> <p>20. Delivery date or target date of delivery</p> <p>21. Attached files if needed</p> <p>22. Discussion threads</p> <p>The Contractor shall share the above information (at least in read-only mode) with the Engineer.</p>

#### 4.3 Contractor Personnel Requirements

No	Contractor's Team Requirements
4.3.1	<p>The Technical Proposal shall describe the mobilized team with at least the following roles during the supply and installation activities under the Contract:</p> <ol style="list-style-type: none"> <li>1. Project manager - holding project management certification (e.g. Project Management Professional) or more than ten (10) years of relevant experience including at international level, described in the resume or portfolio.</li> <li>2. Forecaster workstation system software expert who master's the proposed system applications and as a speaker on met-ocean, hydrology-coastal marine, fisheries, tourism and agriculture, disaster risk reduction applications in on-site training</li> <li>3. System Integrator, has at least five (5) years of experience in IT system integration, described in the resume or portfolio. International experience is an asset.</li> <li>4. Forecaster trainers who has at least five (5) years of experience in the use of the system applications proposed. International trainings done in the tropical monsoon and cyclone regions delivering services for the key sectors of the programme are important assets.</li> </ol>
4.3.2	<p>The qualifications, specific skills and experience of each member of the Contractor's team shall be described in the proposal.</p>



## 4.4 Quality Assurance

<b>No</b>	<b>Quality Assurance Requirements</b>
4.4.1	The Contractor shall establish and implement a Quality Management System for the Study, Design, Building and Operation of the project as described below, The Quality Management System shall be applied without prejudice to, or without in any way limiting, any Quality System that the Contractor already maintains
4.4.2	The Contractor shall submit the Quality Assurance and Management Plan for approval of the Hydromet Project Management Unit (PMU).
4.4.3	The Contractor's quality management system shall be tailored specifically to the Contract and the Works in accordance with S 9001 – Quality Management System, the latest edition of the International Standard ISO 9001, and the Contractor shall submit his quality management system titled as the Project Quality Assurance Plan for the PMU review.
	<b>General Assurance</b>
4.4.4	<p>The Quality Management System documentation shall comply with but shall not be limited to the following:</p> <ol style="list-style-type: none"> <li>1. Project Quality Plan</li> <li>2. Quality Procedures, work Instructions and standards.</li> <li>3. Documentation</li> <li>4. Supply, construction</li> <li>5. Installation</li> <li>6. Manufacturing</li> <li>7. Inspection testing.</li> </ol>
4.4.5	The Contractor shall plan, perform and record all quality control activities to ensure that all work is performed in accordance with the requirements of the Contract and is detailed in the quality plans which are required under this section. Such activities shall include, without limitation, the inspections end/or test expressly or implicitly required by the Contract.
4.4.6	Quality audits shall be conducted to verify the Contractor's implementation and compliance with the quality management system as specified herein.
	<b>Submission of Quality Documentation</b>
4.4.7	A quality policy statement signed by the Chief Executive Officer (CEO) of the Contractor (or other senior management of the Contractor) declaring that the Contractor shall ensure that Quality Management is given the highest practicable priority by the Contractor in executing the works. In the event that the Contractor is a consortium, partnership or joint venture, statements signed by the Chief Executive Officer (or other senior management of the Contractor) of each of the

No	Quality Assurance Requirements
	companies comprising the consortium partnership or joint venture shall be submitted
4.4.8	Quality system documents to be submitted shall embrace all activities of the Contractor and his Sub-Contractors including his suppliers, for the execution of the works.
4.4.9	<p>Within 90 days after the Commencement Date, the Contractor shall present and submit the following documents for review:</p> <ul style="list-style-type: none"> <li>(i) Project Quality Plan</li> <li>(ii) Project Quality Procedures and instructions</li> </ul>
	<b>Format of Quality System</b>
4.4.10	<p>The delivered documents shall have a standardized format and show clearly on the document:</p> <ul style="list-style-type: none"> <li>(1) The document title, the document number (if any) and the page number on each page.</li> <li>(2) Approval page.</li> <li>(3) The revision status, with the amendments identified within the revised documents</li> </ul>
	<b>Project Quality Plan</b>
4.4.11	<p>The Project Quality Plan shall describe the Contractor's management structure and the quality management system for the execution of the Works and shall, without limitation, be defined as follows:</p> <ul style="list-style-type: none"> <li>(1) The organization of the Contractor's managerial staff with particular reference to any member of a partnership, consortium or Joint venture, and the main Sub-Contractors. Organization charts shall be produced to illustrate the sub-division of the Works into elements for effective technical and managerial control, the reporting structure and the interface relationship between all parties involved.</li> <li>(2) The appointment of a Quality Manager</li> <li>(3) The specific allocations of responsibility and authority given to managerial and technical staff with particular reference to the design and site supervision of the Works.</li> <li>(4) The Contract specific quality procedures, works instructions and/or standard forms, if applicable</li> <li>(5) A full list of quality procedures, works instructions, and/or standards, including any contract specific documents, to be applied to the Contract.</li> </ul>
	<b>Quality Manager</b>

<b>No</b>	<b>Quality Assurance Requirements</b>
4.4.12	The Contractor shall appoint a suitably qualified and experienced full-time person as the Quality Manager to be responsible for the task of establishing the documented quality management system and ensuring its effective implementation.
4.4.13	The Quality Manager shall be directly responsible to the senior level of management and is able to discharge his duties without hindrance or constraint. In addition, the Contractor shall make available any such resources that are necessary to ensure the effective implementation of the quality management system
4.4.14	The Quality Manager's responsibilities shall include: <ol style="list-style-type: none"><li>1) On and off-site quality review</li><li>2) Monitoring and reporting</li><li>3) Reviewing all Quality documentation; Quality Plan, Works Procedures, Inspection and Test Plans, etc.</li></ol>
4.4.15	The Contractor shall submit for review by the Employer details of qualifications, experience, authority, and responsibility of the proposed Quality Manager, as part of the Project Quality Plan.
	<b>Quality Audits and Controls</b>
4.4.16	The Contractor shall precise in its proposal its quality certification and the frequency of quality audits.
4.4.17	The Contractor shall be precise in its proposal how quality non-conformities are processed.
4.4.18	The Contractor shall continuously monitor the performance of its quality management system and shall provide yearly report on its status including the related findings. The PMU will verify that all the quality records as objective evidence of the regular implementation of the Contractor's quality management system.

## 4.5 Infrastructure and Installation General Requirement

No	Infrastructure and Installation requirements
	<b>Electrical works, cabling</b>
4.5.1	The Contractor shall lay all additional electrical, network and/or telecommunication cables required for the System.
4.5.2	<p>All electrical works shall comply with all necessary regulations of the relevant authorities and if required, shall be endorsed, and approved by the relevant personnel and authorities (e.g., endorsement of electrical single line diagram by licensed electrical worker) at the cost of the Contractor.</p> <p>All costs associated with the testing shall be borne by the Contractor including the services of any specialized personnel or independent assessors.</p>
	<b>Computer's environment</b>
4.5.3	The Contractor shall supply and install the necessary server rack(s), including cable management arm and accessories equipped with rack mountable KVM switch and LCD
4.5.4	The Contractor shall ensure that the forecaster workstation rooms shall be equipped with potential additional electric capacity and cooling hardware.
4.5.5	All servers/equipment supplied shall be able to receive power supply from two (2) power sources (e.g., having 2 power supplies in the equipment, provision of automatic power transfer switch for single power devices).
4.5.6	<p>As an integrator, the Contractor shall be responsible of any component of the delivered systems, including the Operating systems and middleware's used by the applications.</p> <p>The system overview:</p> <ul style="list-style-type: none"> <li>- the system shall allow visualization of, and interaction with, meteorological data required for forecasting activity such as observation, satellite, radar, GTS data, model data;</li> <li>- The system shall be accessible through LAN or Internet/WAN/VPN using a standard terminal equipped with a web browser. The system shall be based on a web-based client server architecture.</li> <li>- The system shall allow configuration of the different working positions to tailor them to different forecasting activities (general forecasting, aviation, marine and oceanography, fisheries, agriculture, tourism, DRR).</li> </ul> <p>Configuration shall be based on user profile</p> <ul style="list-style-type: none"> <li>-The system shall provide multi-screen management up to four physical screens.</li> <li>- The system's working environment shall provide monitoring tools (OS monitoring tools, dataflow monitoring tools).</li> <li>- The system 's English or French documentation according to the country, shall be accessible online (interactive website) at any time from the user working environment.</li> </ul>

No	<b>Infrastructure and Installation requirements</b>
	<p>Graphical user interface</p> <p>-The system shall provide an intuitive and user-friendly interface:</p> <ul style="list-style-type: none"> <li>-graphic user interface.</li> <li>-Multi-window interface. It makes it possible to look simultaneously at many types of data which cannot be overlaid and easily explore the data.</li> </ul> <p>The system shall provide administration web portal to configure users, replay management and monitoring.....</p> <p>The system shall include graphical edition features ( e.g fronts, meteorological symbols, synthetic analysis and forecasts charts, impact based forecasts with risk matrices...)</p> <p>The system shall be accessible only by authorized users.</p> <p>A username and password are required to access the system interface. Each user has an identifier (username) and a password that is verified prior to giving access to the application.</p> <p>The system shall allow users access rights on system functions.</p> <p>Each user is associated to a user group. Depending on the group's privileges, only a subset (or all) of the functions is available to a connected user. The rights to access functions are grouped into privilege components, through dedicated interfaces, and are assigned to the users group. This filter is managed by the “administrator”.</p> <p>The System shall manage different types of users (aviation, general forecaster, agriculture, disaster management, marine, oceanography, fisheries, tourism...).</p> <p>The working environment (toolbar, tools, data access button) shall be adapted according to the type of user.</p> <p>The system shall allow to create/edit/delete users and groups to adapt the data access and the functionalities to each forecaster.</p> <p>The system shall allow to create/edit/delete the type of productions and how they are distributed.</p> <p>All the above features should be provided with open-source tools available for the lot 2</p>
	<b>Installation</b>
4.5.7	<p>The Contractor shall carry out site surveys to ensure sufficient knowledge of the Site before submitting the relevant installation drawings and installation related submissions to the Engineer for review.</p>

No	<b>Infrastructure and Installation requirements</b>
4.5.8	The Contractor shall provide all necessary and sufficient resources such as tools, test instruments, spares, and equipment, manpower and communication facilities (as indicated in paragraph 5.7.2) to complete all the installation activities.
4.5.9	The Contractor shall take every precaution to protect existing equipment and facilities on Site from damage and shall make good any damage caused. Care shall also be taken not to interfere with the operation of existing equipment(s).
4.5.10	The Contractor shall submit Installation Program (schedule installation, Pre-requisites, share of Work with Engineer and external entities, installation methods statements) for each type of installation activities before the commencement of the activity to the Engineer for review. The deadline for giving this document shall be submitted during the Detailed Design Specifications period.
4.5.11	Any installation activity shall commence only after the related Installation Program has been reviewed without objection by the Engineer.
4.5.12	The Contractor shall ensure that his staff are competent and possess all the necessary skills to carry out the installation in a proper and safe manner.
	<b>Interfacing with relevant ‘Other Contractors’</b>
4.5.13	The Contractor shall highlight in his Installation Program any item, material, equipment, resource and support required from the ‘Other Contractors with dates, duration and locations.
4.5.14	The Contractor shall also bring to the notice of the PMU all relevant constraints which may affect the <b>Installation</b> Program.

#### 4.6 Systems Interfaces, Data Integration Support and Services

No	<b>Data Integration support and services Requirements</b>
<b>Information</b>	This paragraph includes specifications for ensuring that HYDROMET Forecaster Workstation data and products are consistent and that they can be used to develop services for any stakeholder.
4.6.1	<p>As part of the data integration upgrade, the supplier shall provide extended data processing services during the project duration, in order to contribute to products consistency within all NMHS’s systems. Automatic data acquisition, data transfer protocols, data acquisition monitoring are expected.</p> <p><b>Real time data acquisition</b></p> <p>The system shall allow the acquisition of meteorological data in an automatic way from external sources based on WMO TCP IP, WIS 2 box,</p> <p>The system shall be able to receive data through WMO FTP and other standard transfer protocols (open DAP, WMS, WCS protocol).</p> <p>The system shall provide dedicated interfaces to monitor data acquisition</p> <p>The system shall receive real-time data flow from external data server through</p>

No	Data Integration support and services Requirements
	<p>the Web using the WIS 2 box and any available data exchange mechanism agreed upon between NMHS and WMCs.</p> <p><b>Data identification</b>                      The system shall use WMO headers to identify data. Data identification is based on the file header or on specific tags included in the file.</p> <p>The system shall identify standard meteorological data in real time, including:</p> <ul style="list-style-type: none"> <li>• Alphanumeric messages</li> <li>• Surface (land and sea) observations</li> <li>• Oceanic observations</li> <li>• Altitude observations</li> <li>• Satellite products data</li> <li>• Radar products</li> <li>• Lightning data</li> <li>• SIGWX, Wind/Temp or any others T4-coded charts</li> <li>• Objects (expertise products) issued by other (local) forecasters or forecasting centres (Washington / London)</li> <li>• Numerical Weather Prediction model outputs .....</li> </ul> <p>The system shall be able to split WMO packed files and to decompress files for data identification. Data identification module shall analyse incoming files and determine the type of data. If needed, it shall split WMO packed files or unzip the initial file.</p> <p>The system shall store unrecognized data in a default location.                      If a file is not recognized, it shall be moved to the default location to be analysed by system administrators.                      The system shall provide dedicated interfaces to display identification log files.                      The system shall verify data validity and store valid data.                      For each type of data, a specific program shall decode the data in order to verify its validity and extract some necessary information. If the data is valid, it shall be sent to data storage.</p> <p>The system shall decode WMO and ICAO standard format data.</p> <p>The system shall decode alphanumeric warning messages provided on WIS.                      These messages are categorized as:</p> <ul style="list-style-type: none"> <li>• Volcano ash warning</li> <li>• Thunderstorm warning</li> <li>• Tornado warning</li> <li>• Cyclone warning</li> </ul>

No	<b>Data Integration support and services Requirements</b>
	<ul style="list-style-type: none"> <li>• Tsunami warning</li> <li>• Marine warning</li> <li>• General warning (i.e. flood warning...)</li> </ul> <p>The system shall ingest and decodes radar data and products in GeoTIFF, BUFR-OPERA, BIN and other formats. The system shall handle rainfall images, accumulated rainfall products and wind data.</p> <p>The system shall ingest and decodes lightning product in Meteorage, SFLOC, BUFR and CSV formats. The system shall handle cloud to ground and cloud to cloud lightning.</p> <p>The system shall handle charts in PDF, JPEG, GIF and PNG formats. The system shall decode expertise SIGWX products in WAFS BUFR format.</p> <p>The system shall handle significant weather charts and surface pressure charts in WAFS BUFR format.</p> <p>The system shall decode and display cyclone tracks in CXML and KML format.</p> <p>The system shall display the cyclone phenomena with the observation, estimated track and trajectory cone.</p> <p>The system shall decode and display NWP atmospheric and sea-state models outputs in GRIB format. It shall be possible to export the expertise charts (Surface analysis and forecasts chart, SIGWX...) to the local WIS 2 node for further distribution to regular subscribers.</p> <p><b>Data Storage</b></p> <p>The system shall manage automatically out-of-date data deletion.</p> <p>The storage duration shall be customizable up to 5 days.</p> <p>The system shall authorize backup and archive on external devices of ad hoc data events data for case studies.</p> <p>The system shall store additional information (eg metadata) which is neither forecasting information nor meteorological data (as point of interests or background).</p>
4.6.2	<p><b>Data catalogue</b></p> <p>During the Detailed Design the Contractor shall describe the Ingested and Produced Forecaster Workstation data with at least the following information's:</p> <p>Each entry of the catalogue shall contain:</p> <ol style="list-style-type: none"> <li>1. Type of data.</li> <li>2. Volume estimation.</li> <li>3. Data location and access</li> <li>4. Format detailed description</li> </ol>
4.6.3	<p>The Forecaster Workstation shall comply with the WMO standards in particular:</p>



No	Data Integration support and services Requirements
	1. Manual on the WIS 2. Guide to the WIPPS
4.6.4	<b>Interface Control Documents</b> For each system interface between two systems, especially the interface with telecom or any data collection system delivered in the frame of HYDROMET Project, the Contractor shall comply with the Interface Control Documents (ICD) describing this interface (used protocol, connection parameters, etc.)
4.6.5	If necessary, the Contractor shall provide support to the employer and/or the contractor of the HYDROMET Package 5 for decoding and displaying the data
4.6.6	<b>Station integration in the full HYDROMET infrastructure</b> The Contractor shall configure the Forecaster Workstation to enable integration of the observing, data exchange, processing and service deliverable in the Hydromet project sectors (DRR, agriculture, marine, tourism, fisheries....)

#### 4.7 Specific Equipment

No.	Specific Equipment Requirements
4.7.1	<p>The technical proposal shall detail the proposed components with the opensource solution when available.</p> <p><b>System architecture</b></p> <p>The system shall be designed as a multitier client server architecture.            High availability of the System shall be implemented through cluster type architecture.</p> <p>The system shall provide load balancing features with the possibility to increase the number of users by adding computation nodes.</p> <p>The system shall come with the following documentation:            Administration Manual: Overview and administration guide (repair and maintenance, backup &amp; restore, hardware documentation)            Operator Manual: Features and usage, portal description</p> <p>The system shall rely on hardware solutions:</p> <ul style="list-style-type: none"> <li>• Backup of virtual machines</li> <li>• Backup of SAN data storage</li> </ul> <p>The system shall back up only the client configurations. The back-up files can be copied on an external device in order to be easily re-installed once the system shall have been updated.</p>

## 4.8 Quantity and components Specifications

**Lot 1**

No	Description	Unit	Volume				TOTAL
			<i>Comoros</i>	<i>Mauritius</i>	<i>Seychelles</i>	<i>Regional Training Centre in Mauritius</i>	
	<b>FORECASTER WORKSTATION</b>	<b>Set</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>4</b>
The prices offered for the above system devices must take into account the following lumpsum cost components to be delivered and installed at each country meteorological HQ. The quantity below are the ones for one country.							
A1	<b>Servers</b>						
A11	Server with at least 2 CPUs (provide 10 CPUs as an option). Each CPU: 12 cores each, 96 GB RAM	Unit	2	2	2	2	8
A12	Fast access local storage: Hard disk SATA SSD, 1,8 TB SSD, RAID1 (VMware boot compliant)	Unit	2	2	2	2	8
B1	<b>Network, security &amp; storage</b>						
B11	Internal network management: HP Switch 24 ports, 1Gb/s Hot-standby configuration for High Availability	Unit	2	2	2	2	8
B12	External network protection, VPN access: Firewall 8x 1Gb/S. Hot-standby configuration for High Availability	Unit	2	2	2	2	8
B13	Shared storage solution: NAS enclosure - 4 bays	Unit	1	1	1	1	4
B14	Shared storage capacity (storage for backup, update repository, ...): NAS storage: 14 TB, SATA raid protected	Unit	4	4	4	4	16

No	Description	Unit	Volume				TOTAL
			<i>Comoros</i>	<i>Mauritius</i>	<i>Seychelles</i>	<i>Regional Training Centre in Mauritius</i>	
B15	Shared storage capacity (for virtual machines, ...): SAN Storage	Unit	1	1	1	1	4
C1	<b>Client station</b>						
C11	High performance workstation for operators: 8 cores intel CPU, 16 Go RAM, 16 Go Ram 512 Go SSD Hard drive 4 display port graphic card Windows 10 Pro	Unit	3	3	3	5	14
C12	Screen display for workstations: 24" led display screen 1920x1200	Unit	9	9	9	15	42
C13	High performance video card	Unit	3	3	3	5	14
C14	UPS adapted per client station	Unit	3	3	3	5	14
D	<b>Software licences</b>						
D11	COTS Licences: OS and middleware	Unit	As needed	As needed	As needed	As needed	
D12	Server Licenses	Unit	1	1	1	1	4
D13	Licenses of Core application software	Unit	1	1	1	1	4
D14	Licenses for additional modules, if any	Unit	1 for each module	1 for each module	1 for each module	1 for each module	
D15	Client License	Unit	3	3	3	5	14
E1	<b>Infrastructure</b>						

No	Description	Unit	Volume				TOTAL
			<i>Comoros</i>	<i>Mauritius</i>	<i>Seychelles</i>	<i>Regional Training Centre in Mauritius</i>	
E11	Rack cabinet	Unit	1	1	1	1	4
E12	Set of cables	Unit	1	1	1	1	4
E13	UPS (Uninterruptible Power Supply) for servers	Unit	2	2	2	2	8
E14	PDU (Power Distribution Unit) for servers	Unit	2	2	2	2	8
E15	Spare parts	Unit	1	1	1	1	4
E16	Power plug and socket(outlets)	Unit	1 (power plug and socket (outlets) type E) Voltage 220 V frequency 50 Hz	1(power plug and socket (outlets) type G) Voltage 230 V frequency 50 Hz	1 ( Type G) Voltage 240 V frequency 50 Hz	1 (power plug and socket (outlets) type G) Voltage 230 V frequency 50 Hz	4
F1	<b>Training and acceptance test</b>						
F11	Factory Acceptance Test (FAT)	Days	3 days for all				3
F12	On-site Administration training (option for one training at regional centre for all NMHSs)	Days	5	5	5		15
F13	On-site Training for Forecaster (Option for one training at regional training centre for all NMHSs)	Days	5	5	5		15
F14	Site Acceptance Test (SAT) and training	Days	3	3	3		9

**Lot 2**

No	Description	Unit	Volume
			<i>Madagascar</i>
	<b>FORECASTER WORKSTATION</b>	<b>Set</b>	<b>1</b>
The prices offered for the above system devices must take into account the following lumpsum cost components to be delivered and installed at each country meteorological HQ. The quantity below are the ones for one country.			
A2	<b>Servers</b>		
A21	Server with at least 2 CPUs (provide 10 CPUs as an option). Each CPU: 12 cores each, 96 GB RAM	Unit	2
A22	Fast access local storage: Hard disk SATA SSD, 1,8 TB SSD, RAID1 (VMware boot compliant)	Unit	2
B	<b>Network, security &amp; storage</b>		
B21	Internal network management: HP Switch 24 ports, 1Gb/s Hot-standby configuration for High Availability	Unit	2
B22	External network protection, VPN access: Firewall 8x 1Gb/S. Hot-standby configuration for High Availability	Unit	2
B23	Shared storage solution: NAS enclosure - 4 bays	Unit	1
B24	Shared storage capacity (storage for backup, update repository, ...): NAS storage: 14 TB, SATA raid protected	Unit	4
B25	Shared storage capacity (for virtual machines, ...): SAN Storage	Unit	1
C2	<b>Client station</b>		
C21	High performance workstation for operators: 8 cores intel CPU, 16 Go RAM, 16 Go Ram	Unit	3

No	Description	Unit	Volume
			<i>Madagascar</i>
	512 Go SSD Hard drive 4 display port graphic card Windows 10 Pro		
C22	Screen display for workstations: 24" led display screen 1920x1200	Unit	9
C23	High performance video card	Unit	3
C24	UPS adapted per client station	Unit	3
D2	<b>Software licences</b>		
D21	COTS Licences: OS and middleware	Unit	As needed
D22	Server Licenses: provide opensource and free applications software for Madagascar which can be an option for other countries	Unit	1
D23	Licenses of Core application software : provide opensource and free applications software for Madagascar which can be an option for other countries	Unit	1
D24	Licenses for additional modules, if any	Unit	1 for each module
D25	Client License : provide opensource and free applications software for Madagascar which can be an option for other countries	Unit	3
E2	<b>Infrastructure</b>		
E21	Rack cabinet	Unit	1
E22	Set of cables	Unit	1
E23	UPS (Uninterruptible Power Supply) for servers	Unit	2

No	Description	Unit	Volume
			<i>Madagascar</i>
E24	PDU (Power Distribution Unit) for servers	Unit	2
E25	Spare parts	Unit	1
E26	Power plug and socket(outlets)	Unit	1 (power plug and socket (outlets) type E and K) Voltage 127/220 V frequency 50 Hz
F2	<b>Training and acceptance test</b>		
F21	Factory Acceptance Test (FAT)	Days	3
F22	On-site Administration training (option for one training at regional centre for all NMHSs)	Days	5
F23	On-site Training for Forecaster (Option for one training at regional training centre for all NMHSs)	Days	5
F24	Site Acceptance Test (SAT) and training	Days	3

## 5 General specifications

### 5.1 Systems Overview

No	Function	Requirements
5.1.1	Forecasting activities	The system shall be dedicated to professional forecasting activities. The system shall allow visualization of, and interaction with, meteorological data required for forecasting activity such as observation, satellite, radar, GTS and WIS data, model data.
5.1.2	Web access	The system shall be accessible through LAN or Internet/WAN/VPN using a standard terminal equipped with a web browser. The system shall be based on a web-based client server architecture.
5.1.3	Forecasting activities configuration	The system shall allow configuration of the different working positions to tailor them to different forecasting activities (general forecasting, public weather forecasting, aviation and road safety, tourism, fisheries and marine, disaster risk reduction, agriculture). *Configuration shall be based on user profile.
5.1.4	Multi-Screen	The system shall provide multi-screen management up to four physical screens.
5.1.5	Utility Tools	The system's working environment shall provide monitoring tools (OS monitoring tools, dataflow monitoring tools).
5.1.6	On-line documentation	The system 's English or French documentation according to the country, shall be accessible online (interactive website) at any time from the user working environment.

### 5.2 Graphical User Interface

No	Function	Requirements
5.2.1	Multi-window User interface	The system shall provide an intuitive and user-friendly interface: <ul style="list-style-type: none"> <li>• Very graphic user interface.</li> <li>• Multi-window interface. This way, it is possible to look simultaneously at many types of data which cannot be overlaid and easily explore the data.</li> </ul>
5.2.2	Administration website	The system shall provide administration web portal to configure users, groups, replay management and monitoring.
5.2.3	Graphical edition features	The system shall also include graphical edition features (e.g. fronts, meteorological symbols)

### 5.3 User privilege management

No	Function	Requirements
5.3.1	User authorization	The system shall be accessible only by authorized users. A username and password are required to access the system interface. Each user has an identifier (username) and a password that is verified prior to giving access to the application.



5.3.2	Groups	The system shall allow users access rights on system functions. Each user is associated to a user group. Depending on the group's privileges, only a subset (or all) of the functions is available to a connected user. The rights to access functions are grouped into privilege components, through dedicated interfaces, and are assigned to the users group. This filter is managed by the “administrator”.
5.3.3	User Management	The System shall manage different types of users (aviation, general forecaster, ...). The working environment (toolbar, tools, data access button) shall be adapted according to the type of user.
5.3.4	Admin portal - User management	The system shall allow to create/edit/delete users and groups to adapt the data access and the functionalities to each forecaster.
5.3.5	Admin portal - Production management	The system shall allow to create/edit/delete the type of productions and how they are distributed.

#### 5.4 Data acquisition subsystem

##### 5.4.1 Real time data acquisition

No	Function	Requirements
5.4.1.1	Automatic acquisition	The system shall allow the acquisition of meteorological data in an automatic way from external sources based on WMO TCP IP standards and WIS 2 box.
5.4.1.2	FTP input protocol	The system shall be able to receive data through WMO FTP and other standard transfer protocols (open DAP, WMS, WCS).
5.4.1.3	Data acquisition monitoring	The system shall provide dedicated interfaces to monitor WMO FTP data acquisition.
5.4.1.4	Data server	The system shall receive real-time data flow from external data server through the Web (FTP, SFTP, FTPS, Open DAP, OGC WCS, OGC WMS protocols)

##### 5.4.2 Data identification

No	Function	Requirements
5.4.2.1	Identification with WMO headers	The system shall use WMO headers to identify data. Data identification is based on the file header or on specific tags included in the file.
5.4.2.2	Standard meteorological messages	The system shall identify standard meteorological data in real time, including: <ul style="list-style-type: none"> <li>• Alphanumeric messages</li> <li>• Surface (land and sea) observations</li> <li>• Oceanic observations</li> <li>• Altitude observations</li> <li>• Satellite products data</li> <li>• Radar products</li> <li>• Lightning data</li> <li>• SIGWX, Wind/Temp or any others T4-coded charts</li> </ul>

		<ul style="list-style-type: none"> <li>• Objects (expertise products) issued by other (local) forecasters or forecasting centres (Washington / London)</li> <li>• Numerical Weather Prediction model outputs (Atmospheric and sea-state)</li> </ul>
5.4.2.3	Decompression	The system shall be able to split WMO packed files and to decompress files for data identification. Data identification module shall analyse incoming files and determine the type of data. If needed, it shall split WMO packed files or unzip the initial file.
5.4.2.4	Unrecognized data	The system shall store unrecognized data in a default location. If a file is not recognized, it shall be moved to the default location to be analysed by system administrators.
5.4.2.5	Data identification monitoring	The system shall provide dedicated interfaces to display identification log files.

## 5.4.3 Data decoding

No	Function	Requirements
5.4.3.1	Data validity	The system shall verify data validity and store valid data. For each type of data, a specific program shall decode the data in order to verify its validity and extract some necessary information. If the data is valid, it shall be sent to data storage.
5.4.3.2	WMO and ICAO standard decoding	<ul style="list-style-type: none"> <li>• The system shall decode WMO and ICAO standard format data</li> </ul>
5.4.3.3	Alphanumeric Messages	The system shall decode alphanumeric warning messages provided on the GTS. These messages are categorized as: <ul style="list-style-type: none"> <li>• Volcano ash warning</li> <li>• Thunderstorm warning</li> <li>• Tornado warning</li> <li>• Cyclone warning</li> <li>• Tsunami warning</li> <li>• Flood warning</li> <li>• Strong winds warning</li> <li>• Storm surge warning</li> <li>• Heat wave warning</li> <li>• Marine warning</li> <li>• General warning</li> </ul>
5.4.3.4	Satellite products	The system shall ingest and decode satellite products in GeoTIFF.
5.4.3.5	Radar products	The system shall ingest and decodes radar products in GeoTIFF , BUFR-OPERA and BIN formats. The system shall handle rainfall images, accumulated rainfall and wind products.

5.4.3.6	Lightning products	The system shall ingest and decodes lightning product in Meteorage, SFLOC, BUFR and CSV formats. The system shall handle cloud to ground and cloud to cloud lightning.
5.4.3.7	Image format	The system shall handle charts in PDF, JPEG, GIF and PNG formats.
5.4.3.8	SIGWX format	The system shall decode expertise SIGWX products in WAFS BUFR format. The system shall handle significant weather charts and surface pressure charts in WAFS BUFR format.
5.4.3.9	Cyclone CXML format	The system shall decode and display cyclone tracks in CXML and KML format. The system shall display the cyclone phenomena with the observation, estimated track and trajectory cone.
5.4.3.10	Models Outputs	The system shall decode and display NWP atmospheric and sea-state models outputs in GRIB and Net CDF formats.
5.4.3.11	WMO model parameters	The system shall handle standard WMO model parameters and levels.
5.4.3.12	Export through GTS and WIS 2.0	It shall be possible to export the expertise charts (Surface analysis chart, SIGWX...) through the local AMSS and WIS 2.0 for further distribution to regular subscribers

#### 5.5 Data storage subsystem

No	Function	Requirements
5.5.1	Storage duration	The system shall manage automatically out-of-date data deletion. The storage duration shall be customizable up to 5 days. The system shall authorize backup and archive on external devices of ad hoc events data for case studies and impact-based forecasting
5.5.2	Metadata storage	The system shall store additional information which is neither forecasting information nor meteorological data (as point of interests or background). Information on impacts including losses and damages available from significant or severe weather events is expected.

## 6 Functional specifications

### 6.1 Selection of data: Catalog Application

No	Function	Requirements
6.1.1	Forecasting activities	<p>The system shall be dedicated to professional forecasting activities.</p> <p>The system shall allow visualization of, and interaction with, meteorological data required for forecasting activity such as observation, satellite, radar, GTS data, model data.</p> <p>The system shall allow the selection of data through a user-friendly catalog.</p> <p>The system shall display a thumbnail preview with a mouse click over the different buttons of the catalogue.</p>
6.1.2	Web access	<p>The system shall be accessible through LAN or Internet/WAN/VPN using a standard terminal equipped with a web browser.</p> <p>The system shall be based on a web-based client server architecture.</p>

### 6.2 Standard visualization functions: Map Application

No	Function	Requirements
6.2.1	Map display	<p>The system shall offer high customization to display data.</p> <p>Several data can be overlaid on the same map.</p> <p>The system shall let the possibility to display with contours or shading, to customize contours, to change the style of lines (heaviness, colours).</p> <p>The system shall let the possibility to change the geographical domain with an associated projection.</p> <p>The system shall provide the possibility to superimpose more than one parameter on a map</p> <p>A 3D map display and/or animation option is expected if available for training and product development for the Regional Training Centre configuration of the station</p>
6.2.2	Data display configuration	<p>The system shall enable the definition of logical conditions in order to display a parameter in different colours according to the selected thresholds.</p>
6.2.3	Data Display Units	<p>The system shall enable the display of data in different units, depending on data, with at least:</p> <p>speed units (kts, m/s, km/h), temperature units (Celsius, Kelvin, Fahrenheit).</p>
6.2.4	Data layers	<p>The system shall provide a layer tree to enable a fast displaying/hiding of data layer using one click.</p>
6.2.5	Layer order and transparency	<p>The system shall provide a layer list to change the order and the transparency of each layer.</p>

6.2.6	Layer manipulation	The system shall allow to add, duplicate, and remove layers on a layer list.
6.2.7	Drag-and-drop function	The system shall allow to drag-and-drop a layer to another map.
6.2.8	Background	The system shall enable the display of a map background. This map background shall be provided by an internal or external GIS OGC/WMS.
6.2.9	Zoom	The system shall provide zoom, cropping zoom. When zooming, the application shall display more details, and the map shall remain readable (decluttering zoom).
6.2.10	External zoom	The system shall provide internal and external zoom, displaying more detailed information on a user-defined zone. Internal zoom shall display the new content in the same window while the external zoom shall open a dedicated window.
6.2.11	Odometer	The system shall provide an odometer. It shall be able to compute the distance between two points or the surface in a polygon. The measured distance shall follow the earth surface. When measuring a distance, concentric circles shall be displayed to assist the user for evaluating the distance around the starting point
6.2.12	Points Of Interest (POI)	The system shall display Points of Interest. It shall display configured points on a map (city, volcano, station, high risk location, FIR).
6.2.13	Annotation	The system shall allow to annotate. The forecaster shall be able to add text and/or drawings on any operational windows and export it as a graphical file.
6.2.14	Annotation sharing	The system shall allow to share annotations between forecasters. Each annotation can be shared on several maps of the same workstation, or on external workstations of other forecasters.
6.2.15	Gauges	The system shall provide information as gauges. It shall display information when the mouse is over data, as a tooltip. The tooltip shall be refreshed with values corresponding to the mouse positions on the screen. It shall be possible to dock the gauge to any location on the screen and it shall be possible to display several gauges at the same time on a map.
6.2.16	Area Aggregation	The system shall provide an area aggregation for each layer allowing to calculate the percentage of surface that each value of the meteorological parameter takes.
6.2.17	Domain synchronization	The system shall offer the possibility to synchronize domains from several windows.
6.2.18	Change domain	The system shall offer the possibility to change the geographical domain in one click. The system shall offer the possibility to set 3 geographical domains as favourites.

6.2.19	Multimap mosaic	The system shall have a multimap option. It shall be possible to show in on window a mosaic of maps. This mosaic (4, 6 or 9 maps) shows the time evolution of the data in several maps.
6.2.20	Timeline	The system shall provide a time navigator in the form of a timeline It enable the switch from one time / date to another. The system shall directly display the available time.
6.2.21	Window Synchronization	The system shall offer animated maps. It enables the animation of the map over a period. It shall be possible to synchronize multiple windows in space and time allowing space/time navigation performed on a given window to be automatically applied to the other synchronized windows
6.2.22	Animation customization	The system shall offer animation customization. It shall be possible to remove image from animation (for example visible satellite image at night-time or corrupted image).
6.2.23	Displayed data update	The system shall have a Refresh mode. The list of available times can be refreshed during animation to add the new data at the end of animation. Several modes are available (shift, cumulative, only last data).
6.2.24	Print	The system shall enable the printing of the map on a printer.
6.2.25	Image Export	The system shall provide an Image Export tool to georeferenced format and to non-georeferenced format (GeoTIFF, JPEG, PNG, GIF, TIF).
6.2.26	Video Export	The system shall enable the export of the map display as a video file (MP4, animated GIF).
6.2.27	Copy to clipboard	The system shall enable to copy the map display to clipboard (as PNG). It shall be possible to paste the clipboard content for further use (document/presentation/illustration)

### 6.3 View over time: Meteogram and table application

No	Function	Requirements
6.3.1	Meteogram application scope	The system's meteogram application shall allow the evolution of observed and forecast meteorological parameters during a selected period to be displayed on any location. The data source shall be observation data or models.
6.3.2	Meteogram access	The system shall open the meteogram application from a map displaying observations data or forecasts parameters. The meteogram's period shall be configurable according to the retention period.
6.3.3	Meteogram on observed and forecast data	The system's meteogram application shall handle all observed message and Numerical Weather Prediction parameters. The forecaster shall be able to visualize several parameters on the same meteogram.
6.3.4	Data parameter representation	The system's meteogram application shall enable the display of the observed and Numerical Weather Prediction parameters with the most adapted representation: <ul style="list-style-type: none"> <li>• Barbs (for the wind)</li> <li>• Bar graph</li> <li>• Box plot</li> </ul>

		<ul style="list-style-type: none"> <li>• Symbols (for weather observations)</li> <li>• Line,</li> <li>• Spline.</li> </ul>
6.3.5	Meteogram configuration	The system's meteogram application shall enable the configuration of the graph presentation (dot, line, bar, spline), design (colours, line width, point size, point symbol) and threshold.
6.3.6	Table application access	The system's table application shall be opened from a meteogram displaying observation data or forecasts parameters.
6.3.7	Data table parameter representation	The system's table application shall enable the display of the observed and Numerical Weather Prediction parameters with the modification of values and background colour, order, and sort column.
6.3.8	Table customization	The system's table application shall present data parameters with threshold. The modification of the format value (font, size, colour) and background colour can be applied with a threshold on value.

#### 6.4 Vertical profile application

No	Function	Requirements
6.4.1	Observation data	<p>The system shall display several vertical profile data types.</p> <p>The Vertical profile application shall enable the display of the following observation data:</p> <ul style="list-style-type: none"> <li>• Radio sounding (TEMP)</li> <li>• PILOT</li> <li>• Flight observation (AMDAR and ACAR)</li> <li>• Profiler</li> </ul>
6.4.2	NWP Data	<p>The Vertical profile application shall enable the display of the following forecast data types:</p> <ul style="list-style-type: none"> <li>• Numerical Weather Prediction parameters: <ul style="list-style-type: none"> <li>○ temperature</li> <li>○ wet bulb temperature</li> <li>○ dew-point temperature</li> <li>○ pressure</li> <li>○ index</li> <li>○ mixing ratio</li> <li>○ stability</li> <li>○ pseudo-adiabatic potential temperature (TPW)</li> <li>○ wind</li> </ul> </li> </ul>

6.4.3	Forecast Vertical profile	The system shall calculate the upper air sounding with the data from the nearest grid point of the selected model.
6.4.4	Vertical profile type of plot Observed or forecast upper air soundings	The vertical profile application shall include the following display types: <ul style="list-style-type: none"> <li>• 761 emagram (Skew-T)</li> <li>• 765 emagram Low Level layers</li> <li>• English Tephigram (UK)</li> <li>• Tephigram Standard</li> <li>• Stuve Diagram</li> </ul>
6.4.5	Vertical profile parameters	The system's vertical profile application shall enable the plotting of the following meteorological parameters: <ul style="list-style-type: none"> <li>• temperature curves</li> <li>• wet bulb temperature curves (blue curve)</li> <li>• plot of dew-point temperatures</li> <li>• plot of wind (direction and speed barbs)</li> <li>• stability or instability indices</li> <li>• altitude curve</li> <li>• various diagnostics: <ul style="list-style-type: none"> <li>○ the altitude of the freezing level and the -10°C isotherm in meters,</li> <li>○ characteristics of the surface level and tropopause level (T and P),</li> <li>○ characteristics of the maximum wind levels (direction, speed, and pressure),</li> <li>○ indexes relating to the convection calculated from the sounding values.</li> </ul> </li> </ul>
6.4.6	Vertical profile indices	The system shall display vertical profile indices. The system shall compute the following vertical profile indices: <ul style="list-style-type: none"> <li>• ADEDOKUN1: Indicates potential instability within an intertropical discontinuity.</li> <li>• ADEDOKUN2: Indicates the stability conditions/precipitation non-occurrence.</li> <li>• TELFER: Indicates potential instability and potential thunderstorm</li> <li>• SHOWALTER: Indicates potential instability and potential thunderstorm without taking account of temperature inversion</li> <li>• MOLENAT: Provides a summary table to identify potential instable area</li> <li>• SWEAT: Severe Weather Threat indicates potential severe thunderstorms</li> <li>• LI: Lifted Index indicates potential instability taking account of temperature inversion</li> <li>• KI: K-Index indicates continental summertime air mass thunderstorm potential and tropical convection</li> <li>• KI_MOD: Modified K-Index is an improvement of K-Index</li> <li>• TTI: Total Totals Index indicates tropical convection</li> <li>• TTI_MOD: Modified Total Totals Index</li> </ul>



		<ul style="list-style-type: none"> <li>• CTI: Cross Totals Index</li> <li>• VTI: Vertical Totals Index</li> <li>• TP_WATER: Total Potential Water calculates the total amount of water in a radio sounding.</li> <li>• CCL: Convective Condensation Level indicates the level at which a parcel of surface air will begin to condense</li> <li>• CTP: Convective Temperature Potential is the approximate temperature that air near surface must have to represent the Convective Condensation Level</li> <li>• JEFFERSON: Indicates value for thunderstorms over a wide range of temperature</li> </ul>
6.4.7	Additional visualization features	The system shall provide a hodograph visualization on vertical profile. The system shall provide products for impact-based forecasting and risk-based warning. The system shall provide facilities to select thresholds for different parameters, compute deviations from averages and superimposed maps with contours and shaded analyses or forecasts use prototypes from recent nowcasting and forecasting testbeds and joint briefings, SWIFT, MISVA, AMHEWAS...)

#### 6.5 Forecast vertical cross section application

No	Function	Requirements
6.5.1	Cross section	The user shall be able to create forecast vertical cross section.
6.5.2	Forecast vertical cross-section	<p>The cross-section window display model parameters over the vertical structure of the atmosphere.</p> <p>The system shall enable the activation of cross sections from any parameters at any level.</p> <p>Cross sections shall be drawn with the mouse.</p> <p>Several segments can be drawn and modified.</p> <p>Once drawn, mouse cursor on the cross section shall indicate location information and model outputs values.</p>
6.5.3	Configuration	The user shall be able to configure the level extraction (pressure, height, Flight Level) on the vertical profile application.
6.5.4	Mixed level for low level	<p>The system shall calculate mixed level for the low level (mixed pressure and height information). The system shall present 2 options:</p> <ul style="list-style-type: none"> <li>• Mixed levels</li> <li>• Unmixed levels</li> </ul> <p>The system shall present a button to mix or unmix pressure and height information on the cross-section application.</p>
6.5.5	Winds	<p>The system shall support cross section wind configuration.</p> <p>The system shall calculate tangent wind, normal wind, and relative wind.</p>
6.5.6	Trajectory mode	<p>The system shall support cross section trajectory mode.</p> <p>The user shall be able to tag on the map the departure, the arrival, and the different stopovers location. Once the cross section drawn, the user shall be able to set</p>

		different times for each point of the cross section to simulate the movement of an aircraft.
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### 6.6 Hovmöller application

No	Function	Requirements
6.6.1	Hovmöller diagram	The system shall enable the display of a Hovmöller diagram. It shall display parameters on one point at different levels through the model Time ranges.

### 6.7 Graphical bulletin and message viewing application

No	Function	Requirements
6.7.1	Visualisation of images	The system's graphical bulletin application shall allow displaying PDF charts and PNG images received on the GTS.
6.7.2	Graphical functions	The system's graphical bulletin application shall provide basic display functionalities like rotation and zoom.
6.7.3	Bulletin selection	The system's graphical bulletin application shall allow the selection with filters.
6.7.4	Bulletin download	The system's graphical bulletin application shall allow to download the bulletin. The system shall provide technical notes to support forecast briefings
6.7.5	Alphanumeric messages display	The system's message viewing application shall enable any type of alphanumeric bulletins to be displayed. The Message viewing application shall enable the selection and the display of multiple messages at the same time and the copy of the message content in the clipboard.
6.7.6	Selection criteria	The system's message viewing application shall enable the selection of: <ul style="list-style-type: none"> <li>Type of messages (based on file header: TTAAii)</li> <li>Originating centre (based on file header: CCCC), Date.</li> </ul> This application also shall enable plain text search in the message body

### 6.8 Macro tools

No	Function	Requirements
6.8.1	Macro Record	The system shall enable the record into a "macro" of all display including data and parameters selection, the size and the position of the windows on the different screens, the different selected domains, the chart background. It shall include the main window (plotting, satellite imagery, radar imagery, model outputs) as well as the sub-windows (cross-sections, vertical profiles). This functionality shall provide efficiency for the forecaster during his regular task but also for training. Senior users can create a meteorological multi-window

		environment (a geographical area associated with a NWP model at a specific altitude) to be used routinely by less-experienced forecasters. The system shall enable the preparation of specific “macros” for significant meteo situation with replay, models intercomparisons and comparison with observations and estimates of observations.
6.8.2	Macro replay	The system shall record a "macro" and replays it at any time, choosing any run of the selected model or any satellite imagery or observation date. It shall be possible to let the system select the best matching validity between all components of the macro.
6.8.3	Macro folder organization	The system shall record macros into folders. It shall be possible to copy a macro from a folder to another one but also to another client station (using the same server) to share forecasting experience.
6.8.4	Macro edition	The system’s user shall be able to create and edit his macro and copy other users' watches to modify them. The owner of the macro shall be the only one on who can delete it.
6.8.5	Macro import/export	The system shall allow to export/import a macro to/from another media to share with another forecaster (mail, USB, FTP).

## 6.9 Watches

No	Function	Requirements
6.9.1	Watches display	The system’s watches application shall notify forecaster when some conditions are met (based on threshold defined by the user) for: <ul style="list-style-type: none"> <li>• Observation</li> <li>• Lightning,</li> <li>• model,</li> <li>• alphanumeric messages data,</li> <li>• TAF/METAR.</li> </ul> The notification shall use a colour code indicating the state of the watches.
6.9.2	Watches creation	Users shall be able: <ul style="list-style-type: none"> <li>• to create and edit his own watches.</li> <li>• to copy other users' watches to modify them.</li> </ul>
6.9.3	Watches Configuration	The system’s user shall be able to configure the watch's name, coverage, trigger and notification: <ul style="list-style-type: none"> <li>• popup alert,</li> <li>• sound alert</li> <li>• open View (map or a message list)</li> <li>• play a macro,</li> <li>• website.</li> </ul>
6.9.4	Coverage	The system’s watches application shall allow forecasters to watch geographical areas or specific point of interest (cities, airport)

6.9.5	Watches subscription	The system's user shall be able to subscribe to any watches available on the server.
6.9.6	Watches history	The system's watches timeline shall use the following colour code: <ul style="list-style-type: none"> <li>• White: Unknown (before the first check)</li> <li>• Green: Standby (nothing noteworthy in the watch period)</li> <li>• Yellow: Active (in the watch period, the number of occurrences is positive but lower than the alert threshold)</li> <li>• Red: Alert (in the watch period, the number of occurrences is greater than or equal to the alert threshold)</li> </ul>
6.9.7	Consulting watches	The system watch shall be displayed in two different ways: <ul style="list-style-type: none"> <li>• Display of a plotting chart for observation data</li> <li>• Display of alphanumeric messages</li> </ul>

#### 6.10 Windows manager

No	Function	Requirements
6.10.1	Meteogram application scope	The system's meteogram application shall allow the evolution of observed and forecast meteorological parameters during a selected period to be displayed on any location. The data source shall be observation data or models.
6.10.2	Meteogram access	The system shall open the meteogram application from a map displaying observations data or forecasts parameters. The meteogram's period shall be configurable according to the retention period.
6.10.3	Meteogram on observed and forecast data	The system's meteogram application shall handle all observed message and Numerical Weather Prediction parameters. The forecaster shall be able to visualize several parameters on the same meteogram.

#### 6.11 Numerical Weather Prediction (NWP) application

No	Function	Requirements
6.11.1	Types of NWP	The system shall display outputs of different Numerical Weather Predictions Models (NWP): <ul style="list-style-type: none"> <li>• Determinist (Atmospheric or Oceanographic)</li> </ul> Ensemble / Probabilistic (Atmospheric)
6.11.2	NWP Parameters	The system's NWP application shall offer the selection of parameter for different WMO standard levels. It shall handle the following vertical coordinates: <ul style="list-style-type: none"> <li>• Pressure in hPa (and equivalent in-flight level - FL)</li> <li>• Altitude in meters</li> <li>• Aero (aeronautical fields) in flight levels (tropopause, ISO 0°)</li> <li>• PV (iso-potential vorticity levels) in PVU</li> </ul>

		The values of each mode or vertical levels can be different according to the different models.
6.11.3	Probabilistic models	The system shall display outputs of Ensemble Forecast System / Probabilistic Numerical weather prediction. The system shall display probabilistic model with different representations: quantiles, spaghetti on map and boxplot, maximum, average and minimum value.
6.11.4	Wave model data	The system shall allow to forecast sea state, swell, H1/3, period and meteorological parameters to be displayed.
6.11.5	Operation	The system's NWP map application shall compute operations with model outputs. By superimposing data, whether of the same type or of a different type, it is possible to visualize the result of an arithmetic operation between the fields. For example, the system should be able to display the height of the cloud base using Espy's Formula.
6.11.6	Compute operation: Display of maxima/minima value in altitude of a model field.	The system shall be able to display the minimum or maximum value in altitude of a model parameter.
6.11.7	Compute operation: Display of maxima difference in altitude of a model field	The system shall be able to display the isoline of the maxima difference between all the levels of a model parameter.
6.11.8	Compute operation: Display of tendencies of a model field	The system shall enable the display as an isoline of the 12 hours or 24 hours tendency of some model output parameters.
6.11.9	Extract information	The system shall enable the extraction of the parameter's data on the gauge. With addition of a new geographic layer (a polygon) by the user, the system shall produce new information for the parameters (min, max, average).
6.11.10	Display simulated trajectory of one or multiple air particle in the past or in the future	The system shall display the forecast trajectory of one or multiple air particles (plumes). It shall display forward or backward trajectory. The trajectory computation shall be based on horizontal wind and vertical velocity and shall integrate all the time ranges of the selected model run. The system shall display simulated trajectory of many air particles in the future ("plume").
6.11.11	Animated wind	The system shall display wind trajectories of air particles with animation. The system shall compute trajectories of air particles on a model field. Trajectory computation is based on horizontal wind. The trajectory computation integrates one time from the selected model run. This animation shall be used as a pedagogical view.

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## 6.12 Observation plotting application

No	Function	Requirements
6.12.1	Surface observation plotting	The system shall support the plotting of surface observation messages in several formats (Synop, Ship, Buoy, Metar, TAF, SIGMET, SPECI,AIRMET, Satob)
6.12.2	Altitude observation plotting	The system shall allow the plotting of altitude observation messages in several formats (Temp, Pilot, Flight observations, Amdar, Acar, Satob, Profiler's data)
6.12.3	Surface and altitude observation parameters	The system shall display various surface observation data, with at least: <ul style="list-style-type: none"> <li>• All parameters for data in standard format (SYNOP, METAR, SHIP, TEMP, AIRMET, SIGMET)</li> <li>• MSLP in hPa</li> <li>• Temperature</li> <li>• Dew-point temperature</li> <li>• Cloudiness</li> <li>• Wind direction and speed</li> <li>• Relative humidity</li> <li>• Trend</li> <li>• Precipitation with period</li> </ul>
6.12.4	Altitude observation levels	The system shall enable the display of data on one plotted chart for a single or several altitude observation WMO standard levels.
6.12.5	Display customization	The system shall enable the configuration of the colour, the size of plotting and the distance between plotted observations.
6.12.6	Full Display customization	The system shall allow the display configuration of values and parameters.
6.12.7	TAF/METAR colour code	The system shall enable the plotting of TAF and METAR with a colour code depending on some parameter's threshold.
6.12.8	Contour isolines	The system shall enable the drawing of isolines on the screen, calculated for one of the temperature parameter plotted. The system shall use at least "Inverse Distance Weighting" and "Kriging" algorithms.
6.12.9	Location display	The system shall provide automatic decluttering when it is not possible to plot all the observation at the same time. It shall be possible to display all the observation data locations with a specific symbol.
6.12.10	Flight observation colour	Depending on the altitude, the system shall assign dedicated colours to flight observations. It shall be possible to change altitudes thresholds.

## 6.13 Satellite application

No	Function	Requirements
6.13.1	MTG data flow	The system shall ingest products from the future ClimSA / PUMA MTG solution that will be installed in the 4 countries
6.13.2	Geostationary and polar orbital satellite	The system shall display geostationary and polar orbital satellite images and products. The Satellite application shall allow images transmitted by geostationary or polar orbital satellites to be displayed. The system shall handle satellite images from various sources.
6.13.3	Satellite specific gauges	The system shall provide specific gauges available for satellite maps: <ul style="list-style-type: none"> <li>• Descriptive gauge displays characteristics of the pixel</li> <li>• Surface gauge displays the value of dating</li> </ul>
6.13.4	Colormap selection	The system shall provide a set of colormaps for satellite products. A filter can be applied to exclude or to enhance some information.

## 6.14 Radar application

No	Function	Requirements
6.14.1	Display radar	The system shall allow radar products to be displayed on a mosaic or on a local radar. The system shall ingest GeoTIFF and BUFR OPERA and BIN formats.
6.14.2	Radar products	The system's radar products displayed shall be at least: <ul style="list-style-type: none"> <li>• Radar reflectivity: estimates the instantaneous intensity of precipitation in millimeters per hour.</li> <li>• Accumulated rainfalls</li> <li>• Wind data</li> </ul>
6.14.3	Image filtering	The system's radar application shall enable to filter the image using threshold to enhance some information.

## 6.15 Lightning application

No	Function	Requirements
6.15.1	Lightning products	The system shall allow lightning impacts or density (with count of impacts) of lightning to be displayed. Two modes shall be available: <ul style="list-style-type: none"> <li>• Localization mode display all the lightning impacts on a time period.</li> </ul>

		<ul style="list-style-type: none"> <li>Density mode display a chart of the density of lightning (impact/km<sup>2</sup>) from a grid</li> </ul>
6.15.2	Lightning impact display	<p>The system shall enable the display the following types of impacts:</p> <ul style="list-style-type: none"> <li>Positive</li> <li>Negative</li> <li>Long distance</li> <li>Cloud to cloud</li> </ul>

#### 6.16 Trajectory application

No	Function	Requirements
6.16.1	RDT data	The system shall display Rapidly Developing Thunderstorms (RDT) (nowcasting of convective phenomena developed within the SAF Nowcasting project, as part of the European EUMETSAT partnership).
6.16.2	Cyclone	<p>The system shall display the cyclone phenomena with the observation, estimated and forecast track and trajectory cone.</p> <p>The system shall ingest in CXML and KML format.</p> <p>The system shall provide a Dvorak palette for IR imagery. It should also provide a log 10 spiral to locate the centre of storms/cyclones and analyse their intensity.</p>

#### 6.17 Expertise viewing application

No	Function	Requirements
6.17.1	SIGWX product's origin	The system shall allow expertise products (SIGWX, TAF) from different origins (London, Washington, or local site) to be displayed.
6.17.2	SIGMET expertise representation	The system shall allow SIGMET messages to be displayed on a map.

#### 6.18 WMS external data source

No	Function	Requirements
6.18.1	Add WMS external server	The system shall be able to display maps from external WMS 1.1.1 and 1.3.0 servers.
6.18.2	WMS external configuration	User shall be able to add, delete, and edit external WMS 1.1.1 and 1.3.0 services.



## 6.19 Weather expertise application

No	Function	Requirements
6.19.1	Editing tool	<p>The system shall be able to overlay any observation (satellite, observation plotting, radar) or model outputs from different NWP and load last message for text. The system shall superimpose data layers comparing multiple dataset across categories. The system's chart edition tool shall provide the forecaster a complete set of tools to digitize their analysis.</p> <p>The system shall provide standard functions to apply on meteorological object:</p> <ul style="list-style-type: none"> <li>• Creation</li> <li>• Deletion</li> <li>• Resize</li> <li>• Rotation</li> <li>• Moving</li> <li>• Duplication</li> </ul> <p>The system shall provide specific functions:</p> <ul style="list-style-type: none"> <li>• Drawing and pictogram selection</li> <li>• Interactive field modification for chart,</li> <li>• Text syntax control</li> </ul>
6.19.2	Expertise saving	<p>The system shall save the expertized charts. Each expertise chart can be re-edited as many times as needed by the forecaster until the validation is done.</p> <p>It shall be possible to save the document at different steps of the expertise.</p>
6.19.3	Expertise validation and broadcast	<p>The system shall not disseminate an expertized chart to other centres without chart's validation.</p> <p>Once tagged validated, the chart shall be broadcasted to other centres.</p> <p>A validated map shall be edited but an amendment would be needed to broadcast it again as a valid document.</p>
6.19.4	Dashboard	<p>The system shall include a dashboard for all expertise tasks.</p> <p>The dashboard shall list the tasks of each forecaster team.</p> <p>The dashboard shall allow to visualize the status of the expertise tasks. (In progress, Closed, To do, Altered, Cancelled, Failed, Done, Amended, Waiting)</p> <p>The dashboard shall indicate graphically when an expertise task is being locked by another user.</p>

## 6.20 Aviation application

## 6.20.1 SIGWX chart editor

No	Function	Requirements
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6.20.1.1	Editor	The system shall allow to edit weather objects and add annotations.
6.20.1.2	Meteorological objects edition	The chart editor shall enable meteorological objects to be edited, with at least: <ul style="list-style-type: none"> <li>• Jets</li> <li>• Fronts</li> <li>• Phenomena lines</li> <li>• Icing</li> <li>• Tropopause parameters</li> <li>• Precipitations</li> <li>• Pressure centres.</li> </ul>
6.20.1.3	Isolines edition	It shall be possible to adjust the isolines from displayed parameter: <ul style="list-style-type: none"> <li>• Smooth line</li> <li>• Increase isoline interval.</li> <li>• Decrease isoline interval.</li> <li>• Monsoon through</li> </ul> It shall be possible to edit fields with pencil tools.

#### 6.20.2 Graphical SIGMET editor

No	Function	Requirements
6.20.2.1	SIGMET graphical editor	<p>The system shall provide a graphical editor for SIGMET message.</p> <p>It shall be possible to plot SIGMET warnings on a geographical map.</p> <p>The map shall feature FIR contours and geographical area related to the warning.</p> <p>It shall be possible to draw the polygon of the concerned area by drawing on the screen.</p> <p>It shall be possible to define the hazard attributes:</p> <ul style="list-style-type: none"> <li>• type,</li> <li>• elevation,</li> <li>• features,</li> <li>• evolution,</li> <li>• speed</li> </ul> <p>The system shall automatically produce the text of the SIGMET for all concerned FIRs.</p> <p>It shall be possible to adjust the period of validity of the SIGMET using a timeline mouse control. Any modification shall be applied to all the produced SIGMETs.</p> <p>It shall be possible to adjust the description mode from simplified mode to polygon mode.</p> <p>It is possible to adjust the term of the SIGMET (observed or forecast).</p>

6.20.2.2	SIGMET type selection	The system's SIGMET editor shall allow to select the type of SIGMET: <ul style="list-style-type: none"> <li>• Cyclone,</li> <li>• Thunderstorm,</li> <li>• Volcanic ash</li> <li>• Sandstorm</li> <li>• Turbulence</li> <li>• Icing</li> <li>• Radioactivity</li> <li>• Orographic (severe mountain wave)</li> </ul>
6.20.2.3	FIRs	The system shall allow to create SIGMET on several areas (FIRs: Flight Information Region) at a same time. The FIRs concerned by the hazard shall be highlighted.
6.20.2.4	Polygon reduction	The system's SIGMET editor shall be able to check and reduce the SIGMET message if necessary (according to the ICAO rule, minimum 4 coordinates and not normally more than 7 coordinates).

## 6.20.3 TAF &amp; METAR control application

No	Function	Requirements
6.20.3.1	Extraction	The system's aviation application shall allow the extraction of TAF and METAR messages for one or several stations.
6.20.3.2	Consistency	The system's aviation production monitoring application shall use ICAO rules to check the consistency between TAF and METAR message for each selected station (and provide details and statistics of inconsistency for surface wind, visibility, weather, clouds, vertical visibility, and temperature parameters).
6.20.3.3	Last data use	The system's aviation message monitoring application shall use the last received data automatically with automatic watch mode (always activated).
6.20.3.4	TAF amendment	The system's aviation message monitoring application shall allow to make a TAF amendment.

## 6.20.4 TAF &amp; METAR editor

No	Function	Requirements
6.20.4.1	Edition	The system's TAF & METAR editor shall allow to edit messages with a text editor for TAF and METAR.  The system shall also provide an interface to easily edit the TAF.

6.20.4.2	Message model	The system's TAF & METAR editor shall allow to load the last TAF and METAR messages
6.20.4.3	Syntax	The system's TAF & METAR editor shall check the syntax of TAF and METAR messages compliant with ICAO standard.

#### 6.20.5 Crosswind application

No	Function	Requirements
6.20.5.1	Crosswind application	The system shall present a Cross Wind Monitor module. It shall display the analysis of aircraft's crosswind limit, runway direction and wind observation on a chart on which the wind speed and angle are plotted.
6.20.5.2	METAR message use	The system's crosswind application shall allow to check for an airport with the last METAR message the ability to land an aircraft according to wind characteristics.
6.20.5.3	Configuration	The system's cross wind application shall offer the possibility to configure the aircraft (wind threshold).

#### 6.21 Free text and chart editor

No	Function	Requirements
6.21.1	Text Editor	The system's editor shall allow to create a message with a text editor.
6.21.2	Chart Editor	The system's editor shall allow to edit chart with a map editor.

#### 6.22 Weather expertise - Digital Forecast

##### 6.22.1 General functions

No	Function	Requirements
6.22.1.1	Digital Forecast	The digital forecast shall enable the forecaster to modify some parameters of the model outputs (so as to bring his/her expertise). The forecaster shall be able to generate, update and make available an expertized database validated by an organized community. It shall also be intended to minimize

		manual intervention by the forecasters
6.22.1.2	Parameters	The meteorological parameters to be expertised shall be present weather, temperature, 24h precipitation (Quantitative Precipitation Estimation for one day), humidity, wind (speed and direction), cloud cover, marine parameters (waves, swell).

## 6.22.2 Initialization

No	Function	Requirements
6.22.2.1	Initialisation	The system shall permanently and automatically propose an initialisation either based on available model for the current day or day before in case of data reception problem or from the last expertise in case of data reception problem or persistent meteorological situation.
6.22.2.2	Data source choice	The system shall be able to initiate the forecasters' work in the best possible way. The system shall allow to select different sources of information among several models

## 6.22.3 Expertise

No	Function	Requirements
6.22.3.1	Expertise	The system shall allow forecasters on-duty to modify on the map the parameter values calculated by the NWP models for the primary validity times.
6.22.3.2	Expertise tools	The system shall offer different tools to modify the parameters on a map. Each parameter shall be modified with the most efficient tools according to their type: <ul style="list-style-type: none"> <li>• zonal modification tools</li> <li>• pencil modification tools</li> </ul>
6.22.3.3	Zonal tools	The system shall offer different zonal tools to modify the parameters on a map with the possibility of copying from a source data or by assigning a new value.
6.22.3.4	Pencil tools	The system shall offer different brush type tools to modify field values according to the application of increment, decrement or smoothing of data.
6.22.3.5	Value modification	The system shall offer different tools to increment, decrement and apply threshold on data.
6.22.3.6	Specific value modification	The system shall offer different tools to modify the direction or the value for the vector data.

## 6.22.4 Access provision

No	Function	Requirements
6.22.4.1	Digital forecast data provision	<p>The system shall provide access to the result of the production expertised through different APIs such as OGC/WMS or custom APIs.</p> <p>The system shall provide the result of the production in raw data for external representation or new computation.</p> <p>The system shall provide to the result of the production with OGC/WMS 1.1.1 and 1.3.0 for the map representation.</p> <p>The system shall allow data processing to extract the information after aggregation on predefined custom area or create it on the fly.</p>

## 6.23 Weather expertise - Digital Warning

No	Function	Requirements
6.23.1	Digital Warning	<p>The system shall be able to generate warnings for specific weather parameters that can be used for the production of information towards end-users.</p> <p>The system shall be able to produce the essential warning services and information messages to reach a wide audience from civil protection authorities to the public.</p>
6.23.2	Initialization	<p>The system shall integrate the model outputs (expertised or not) to compute the warnings.</p> <p>The system shall integrate geographic, vulnerability, capacity and exposure data layers. Not supplied with the system.</p>
6.23.3	Expertise data access	The system shall provide access to the result of the production expertised through different APIs
6.23.4	Expertise data format	The system shall provide access to the result of the production in raw data for external representation or new computation.

## 6.24 Production subsystem

No	Function	Requirements
6.24.1	Expertized production	<p>The system shall provide a graphical Production editor allowing to customize:</p> <ul style="list-style-type: none"> <li>• The type of production</li> <li>• The data to extract</li> <li>• The type of triggering to launch the production</li> <li>• The dissemination of the product</li> </ul>

6.24.2	Macro production	The system shall allow a production based on a macro that have a single layer to be defined.
6.24.3	Automated production (Automatic processing)	The system's production subsystem shall support automated production (automatic processing) and provide two launchers: <ul style="list-style-type: none"> <li>• A scheduler: possibility to plan a production at a date or at a predefined time interval.</li> <li>• An event trigger: possibility to run a production on data reception</li> </ul>
6.24.4	Product generation	The system's product definition (created with the Production editor) shall be generated: <ul style="list-style-type: none"> <li>• Manually from the dashboard interface of the system shall</li> <li>• By the automatic processing at a scheduled time</li> </ul>
6.24.5	Production dissemination	The system's production subsystem shall disseminate the final product which has been generated. The dissemination mode is selected in the product definition. The dissemination modes are: <ul style="list-style-type: none"> <li>• A copy in a local directory</li> <li>• A broadcast to another server using FTP protocol</li> </ul>

## 7 Technical specifications

### 7.1 System architecture

No	Function	Requirements
7.1.1	Client server architecture	The system shall be designed as a multitier client server architecture. High availability of the System shall be implemented through cluster type architecture. The system shall provide load balancing features with the possibility to increase the number of users by adding computation nodes

### 7.2 Documentation

No	Function	Requirements
7.2.1	Documentation	The system shall come with the following documentation:  Administration Manual: Overview and administration guide (repair and maintenance, backup & restore, hardware documentation) Operator Manual: Features and usage, portal description

### 7.3 Backup

No	Function	Requirements
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7.3.1	Backup	The system shall rely on hardware solutions: <ul style="list-style-type: none"> <li>• Backup of virtual machines</li> <li>• Backup of SAN data storage</li> </ul>
7.3.2	Configuration backup	The system shall back up only the client configurations. The back-up files can be copied on an external device in order to be easily re-installed once the system shall have been updated.

## 8 Additional services

### 8.1 System engineering and customization

No	Requirements
8.1.1	The Supplier shall provide: Required development, if any, to meet all the specifications of the present document
8.1.2	The Supplier shall anticipate customization of operational application according to each of the 4 National Meteorological Services environment and data flow, with the ingestion of data from SYNOP stations, AWOS, ASOS, radar, automatic rain gauges, MSG / MTG and polar orbiting satellite data flow, WAFS, GFS and LAMs model output.
8.1.3	The Supplier shall provide a High-resolution model output (data flow) covering a wide part of Indian ocean including the 4 countries (Seychelles, Madagascar, Comoros and Mauritius island) (to be specified in the bid) with a resolution of 0.025° maximum or better. This model shall be sent to each National Meteorological Services every day to be ingested and displayed by the System.
8.1.4	The Supplier shall also provide a subset of a global model output (data flow) covering a wide part of Indian ocean including the 4 countries (Seychelles, Madagascar, Comoros and Mauritius island) (from WMO designated WMCs and to be specified in the bid) with a resolution of 0.2° maximum or better. This model output shall be sent to each National Meteorological Services every day through WIS to be ingested and displayed by the System.
8.1.5	The Supplier shall also provide a subset of a sea state model output (data flow) covering a wide part of Indian ocean including the 4 countries (Seychelles, Madagascar, Comoros and Mauritius island) (to be specified in the bid). This model output shall be sent to each National Meteorological Services every day through WIS to be ingested and displayed by the System.
8.1.6	The Supplier shall also provide a post-processing of satellite data identifying high convective cells (called RDT (Rapidly Developing Thunderstorm) over a wide area corresponding of each of the 4 countries. This data flow shall be sent through WIS in real time to each National Meteorological Services to be ingested and displayed by the System.

### 8.2 Factory acceptance test

No	Requirements
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8.2.1	<p>Title: Factory Acceptance Tests</p> <p>Place of Work: Supplier's premises</p> <p>Number of participants: 10 persons (2 persons from each of the 4 NMS and 2 from the HYDROMET Technical Assistance Team)</p> <p>Objectives: Checking system supplies, functional, technical specifications and operational capacity</p> <p>All costs to be borne by the Supplier</p> <p>Details to be provided by the Bidder</p>
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### 8.3 Transport

No	Requirements
8.3.1	Transport CIP to each of the 4 National Meteorological Service Headquarters

### 8.4 Installation and commissioning

No	Requirements
8.4.1	<p>Installation and commissioning of the System on all sites:</p> <p>Hardware and Software development and installation,</p> <p>Software setup and specific tuning,</p> <p>Tests and validation,</p> <p>System backup, archive and installation report</p>

### 8.5 Site Operation training

No	Requirements
8.5.1	<p>Operation Training at each of the 4 NMS HQ:</p> <p>Title: Operations Training</p> <p>Duration: As detailed in section <b>Erreur ! Source du renvoi introuvable.</b></p> <p>Number of participants: 10 persons</p> <p>Place of Training: HQ</p> <p>Description: Training for routine operations on the . Shall be carried out by professional forecaster(s) from a major National Meteorological Service delivering general, agromet, aviation, marine, tourism, fisheries, disaster risk management forecasting services.</p> <p><i>All costs to be borne by the Supplier</i></p> <p><i>Details to be provided by the Bidder</i></p>

### 8.6 Site Administration training

No	Requirements
8.6.1	Administration Training at each of the 4 NMS HQ: Title: Administration Training Duration: As detailed in section <b>Erreur ! Source du renvoi introuvable.</b> Number of participants: 5 persons Place of Training: HQ Description: Regional/national training for administration, supervision and troubleshooting <i>All costs to be borne by the Supplier</i> Details to be provided by the Bidder

### 8.7 Site Acceptance Test

No	Requirements
8.7.1	Site Acceptance Tests at each of the 4 HQ Title: Site Acceptance Tests Place of Work: HQ Objectives: Checking system supplies, installation and operations, update training to verify capability All costs to be borne by the Supplier Details to be provided by the Bidder

### 8.8 Warranty

No	Requirements
8.8.1	<b>One year</b> ( 2 years as option) warranty services on the systems installed.

## 9 Packaging, Shipment and Storage of Material

No	Shipment Requirements
	<b>Packaging</b>
9.1	Each case, crate or package shall be of robust construction and suitable for the intended purpose. Packaging material that are likely to suffer deterioration in quality as a result of exposure to environmental conditions likely to be met during transit from the factory of origin to the Site shall not be used.

No	Shipment Requirements
9.2	Where applicable, the contents of each case, crate or package shall be protected against the harmful effects of ingress of moisture / water by enclosing within a heavy- duty waterproof membrane.
9.3	Each case, crate or package shall be legibly and indelibly marked in large letters with the address, Contract number, “right way up”, opening points and other markings like “fragile”, “keep dry”, “handle with care” etc. along with visual display of internationally accepted symbols as necessary to permit material to be readily identified and handled during transit and when received at site.
9.4	Each case, crate or package shall contain a comprehensive packing list showing the number, mark, size, weight.
9.5	Care shall be taken to prevent movement of equipment within containers by the provision of bracing, straps and securing bolts as necessary.
9.6	Spare parts shall be suitably packed for storage over a long period (e.g project duration) without deterioration and shall be clearly identified showing full name and part number without any need to unwrap packaging.
	<b>Shipment</b>
9.7	All shipments shall be adequately protected to preclude damage during shipment. The Contractor’s quality control personnel shall verify the inspection and preparation for shipment.
9.8	After successful factory acceptance, the equipment shall be delivered on their final destination according to CIP incoterms
9.9	<p>For each shipment, the contractor shall deliver the following documents</p> <ol style="list-style-type: none"> <li>1. Shipping invoices with equipment description, quantity, unit prices and total amount prices</li> <li>2. Packing list</li> <li>3. Certificate of origins</li> </ol> <p>The contractor shall be responsible in handling the delivery of goods from customs to final warehouse.</p>
	<b>Handling, Storage and Delivery</b>
9.10	Handling procedures shall include the use of special crates, boxes, containers, transportation vehicles, equipment, and facilities for material handling.
9.11	The Contractor shall ensure or get confirmation from the Employer that the Site is ready and in good conditions for delivery.
9.12	No dangerous goods shall be delivered to the Site.

## 10 Technical Support

### 10.1 Technical Support Requirements

No	Technical Support Requirements
10.1.1	The Contractor shall prepare and submit for review by the Employer an Operation & Maintenance Plan. The Plan shall include all the aspects related with the Monitoring, Control & Operation of the system / subsystem/ equipment and Maintenance thereof.
10.1.2	Each unit/site of any activity shall benefit from standard warranty and extended warranty/technical support without extra cost until the project technical completion added one year as indicated in paragraph 3 Phasing.
10.1.3	After the project technical completion, the system wide warranty period shall start. This period shall have a duration of one year (with 2 years as optional).
10.1.4	The financial offer shall include three years of maintenance and operational support for all systems.
10.1.5	<p>The technical proposal shall include an operation and maintenance plan with at least:</p> <ol style="list-style-type: none"> <li>1. The Contractor's support team description.</li> <li>2. The Contractor's technical support organization with the different levels of support and associated workflow.</li> <li>3. The proposed Service Level Agreement for each type of system (please refer to next paragraph).</li> <li>4. The description of the different support actions including preventive actions</li> <li>5. The preventive tests and maintenance actions during the warranty and technical support periods.</li> <li>6. Describe how documentation will be updated.</li> </ol>
10.1.6	The contractor shall propose a password management solution at the project technical completion and all administration accounts and passwords shall be recorded in the password management system.
10.1.7	The technical proposal shall detail the cost of maintenance and spare parts.
10.1.8	Where applicable, the contractor shall have the capability to test the backup & restore procedures to establish if the data can be recovered when needed. These capabilities shall be tested at regular intervals and reported to the Employer. Where possible these tests shall be performed in presence of relevant Employer staff members.
10.1.9	<p><b>Technical support management</b></p> <p>In order to facilitate the technical support traceability, the contractor shall use and update a Web-based software for tracking HYDROMET Forecaster Workstation tickets</p> <p>Each ticket should contain the following information (or equivalent):</p> <ol style="list-style-type: none"> <li>1. Name</li> <li>2. Description</li> <li>3. Importance (mandatory, important, or optional)</li> <li>4. Type of issue</li> <li>5. Concerned system or sub-activity</li> </ol>

	<ol style="list-style-type: none"> <li>6. Supplier contact</li> <li>7. NMHS contact</li> <li>8. Status <ol style="list-style-type: none"> <li>a. NEW: not yet reviewed by the supplier</li> <li>b. CANCELLED: after mutual decision</li> <li>c. TO BE DONE</li> <li>d. ON HOLD (supplier waiting for NMHSS clarifications)</li> <li>e. TO BE VALIDATED: delivered and to be tested by NMHSS</li> <li>f. VALIDATED: successfully tested by NMHSS</li> </ol> </li> <li>9. Delivery version (concerns software requirement)</li> <li>10. Delivery date if applicable</li> <li>11. Attached files if applicable</li> </ol>
10.1.10	<p><b>Tracking discussions for each ticket</b></p> <p>For each ticket a discussion thread tracking the exchanges between the intervener's (supplier, NMHSS) shall be possible on the HYDROMET Forecaster Workstation ticket tracking web interface.</p>
10.1.11	<p><b>Employer Account for the ticket tracking web application</b></p> <p>An Employer account shall be created enabling the Employer authorized experts/managers to follow-up the status of the tickets and to update the status of each ticket.</p>
10.1.12	<p><b>Tickets reporting</b></p> <p>The tickets tracking tool shall allow the display of tickets with filtering feature.</p>
10.1.13	<p>Required equipment for observation systems maintenance shall be delivered with associated training when needed.</p>
10.1.14	<p>The Operation and Maintenance manuals shall include the details of each system, subsystem, equipment / components.</p>
10.1.15	<p>During the Warranty, technical support and maintenance periods, the as-built and Operation &amp; Maintenance manuals shall be maintained by the Contractor</p>
10.1.16	<p>The systems/data operational availability shall comply with minimum required availability of 95%</p> <p>System Availability Level = [System Availability / (System Availability + System unavailability) ] x 100%</p> <p>Excluding planned maintenance, upgrade or downtime caused by event beyond Contractor responsibility (e.g., Force Majeure, vandalism)</p>
10.1.17	<p>The Contractor shall provide tools to calculate and report (tables and graphics) the systems/data availability for each type of activity (monthly frequency)</p>

## 11 Annex 1 – Example of Interface Control Document

This example is based on FTP protocol in “push” mode.

### 11.1 Purpose of the document

This document is to specify the data exchange from <system 1> to <system 2>  
<If relevant, insert a figure representing the dataflow between the two systems>

### 11.2 Summary of the exchanged data

<fill hereunder table>

Data name	Description	Used Format	Used Protocol
<name 1>	<quick description>	<Refer to the relevant sub-paragraph of data format paragraph>	<Refer to the relevant sub-paragraph of protocol paragraph>
<name 2>	<quick description>	<Refer to the relevant sub-paragraph of data format paragraph>	<Refer to the relevant sub-paragraph of protocol paragraph>

### 11.3 Data formats description

#### 11.3.1.1 <Format 1>

<insert here a very detailed data format description>

#### 11.3.1.2 <Format 2>

<insert here a very detailed data format description>

### 11.4 Protocol description

<insert here a very detailed data format description. Hereunder an example with FTP protocol>

#### Common rules

- A FTP connection to <system 2> is regularly initiated by <system 1>. o IP connection: 222.252.25.130:2121
  - Login = <To be defined>
  - Password = <To be defined>
- Deposit directory = <data type> (There is a deposit directory specific to each type of data)
- The files are “pushed” by <system 1> with a temporary name
- When the transfer is completed, the file is renamed with a final name
- Then the connection is closed by <system 1>

**Rules for <name 1>**

- Deposit Directory = <name 1>
- Temporary File name = **DataLocation\_YYMMddHHmm.tmp**
- Final File name = **SystemLocation\_YYMMddHHmm**

Where **SystemLocation** = unique identifier (for example Latitude-longitude of the system, or location name)  
and **YYMMddHHmm** = timestamp

## **4. Drawings**

These Bidding Documents includes no drawings.



## **5. Inspections and Tests**

Inspections and tests shall be performed in accordance with the technical specifications in section VII of this document.

## **PART 3 - Contract**

# Section VIII. General Conditions of Contract

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## Section VIII. General Conditions of Contract

- 1. Definitions**
- 1.1 The following words and expressions shall have the meanings hereby assigned to them:
- (a) “AFD” means the Agence Française de Développement;
  - (b) “Contract” means the Contract Agreement entered into between the Purchaser and the Supplier, together with the Contract Documents referred to therein, including all attachments, appendices, and all documents incorporated by reference therein;
  - (c) “Contract Documents” means the documents listed in the Contract Agreement, including any amendments thereto;
  - (d) “Contract Price” means the price payable to the Supplier as specified in the Contract Agreement, subject to such additions and adjustments thereto or deductions therefrom, as may be made pursuant to the Contract;
  - (e) “Day” means calendar day;
  - (f) “Completion” means the fulfillment of the Related Services by the Supplier in accordance with the terms and conditions set forth in the Contract;
  - (g) “GCC” means the General Conditions of Contract;
  - (h) “Goods” means all of the commodities, raw material, machinery and equipment, and/or other materials that the Supplier is required to supply to the Purchaser under the Contract;
  - (i) “Purchaser’s Country” is the country specified in the Special Conditions of Contract (SCC);
  - (j) “Purchaser” means the entity purchasing the Goods and Related Services, as specified in the SCC;
  - (k) “Related Services” means the services incidental to the supply of the goods, such as insurance, installation, training and initial maintenance and other such obligations of the Supplier under the Contract;
  - (l) “SCC” means the Special Conditions of Contract;
  - (m) “Subcontractor” means any natural person, private or state entity, or a combination of the above, to whom any part of the Goods to be supplied or execution of any part of the Related Services is subcontracted by the Supplier;

- (n) “Supplier” means the natural person, private or state entity, or a combination of the above, whose bid to perform the Contract has been accepted by the Purchaser and is named as such in the Contract Agreement;
  - (o) “The Project Site,” where applicable, means the place named in the SCC.
- 2. Contract Documents**
- 2.1 Subject to the order of precedence set forth in the Contract Agreement, all documents forming the Contract (and all parts thereof) are intended to be correlative, complementary, and mutually explanatory. The Contract Agreement shall be read as a whole.
- 3. Fraud and Corruption**
- 3.1 The AFD requires compliance with its policy in regard to corrupt and fraudulent practices as set forth in Appendix 1 to the SCC.
- 4. Interpretation**
- 4.2 If the context so requires it, singular means plural and vice versa.
- 4.3 Incoterms
- (a) Unless inconsistent with any provision of the Contract, the meaning of any trade term and the rights and obligations of parties thereunder shall be as prescribed by Incoterms;
  - (b) The terms CIP and other similar terms, when used, shall be governed by the rules prescribed in the current edition of Incoterms specified in the SCC and published by the International Chamber of Commerce in Paris, France.
- 4.4 Entire Agreement
- The Contract constitutes the entire agreement between the Purchaser and the Supplier and supersedes all communications, negotiations and agreements (whether written or oral) of the parties with respect thereto made prior to the date of Contract.
- 4.5 Amendment
- No amendment or other variation of the Contract shall be valid unless it is in writing, is dated, expressly refers to the Contract, and is signed by a duly authorized representative of each party thereto.
- 4.6 Nonwaiver
- (a) Subject to GCC Sub-Clause 4.5(b) below, no relaxation, forbearance, delay, or indulgence by either party in enforcing any of the terms and conditions of the Contract or the granting of time by either party to the other shall prejudice, affect, or restrict the rights of that party under the Contract, neither shall any waiver by either party of any breach of Contract operate as waiver of any subsequent or continuing breach of Contract;

- (b) Any waiver of a party's rights, powers, or remedies under the Contract must be in writing, dated, and signed by an authorized representative of the party granting such waiver, and must specify the right and the extent to which it is being waived.

#### 4.7 Severability

If any provision or condition of the Contract is prohibited or rendered invalid or unenforceable, such prohibition, invalidity or unenforceability shall not affect the validity or enforceability of any other provisions and conditions of the Contract.

### 5. Language

- 5.1 The Contract as well as all correspondence and documents relating to the Contract exchanged by the Supplier and the Purchaser, shall be written in the language specified in the **SCC**. Supporting documents and printed literature that are part of the Contract may be in another language provided they are accompanied by an accurate translation of the relevant passages in the language specified, in which case, for purposes of interpretation of the Contract, this translation shall govern.
- 5.2 The Supplier shall bear all costs of translation to the governing language and all risks of the accuracy of such translation, for documents provided by the Supplier.

### 6. Joint Venture, Consortium or Association

- 6.1 If the Supplier is a joint venture, consortium, or association, all of the parties shall be jointly and severally liable to the Purchaser for the fulfillment of the provisions of the Contract and shall designate one party to act as a leader with authority to bind the joint venture, consortium, or association. The composition or the constitution of the joint venture, consortium, or association shall not be altered without the prior consent of the Purchaser.

### 7. Eligibility

- 7.1 All Goods and Related Services to be supplied under the Contract and financed by the AFD shall have their origin in any eligible source as specified in the **SCC**. For the purpose of this Clause, origin means the country where the goods have been grown, mined, cultivated, produced, manufactured, or processed; or through manufacture, processing, or assembly, another commercially recognized article results that differs substantially in its basic characteristics from its components.

### 8. Notices

- 8.1 Any notice given by one party to the other pursuant to the Contract shall be in writing to the address specified in the **SCC**. The term "in writing" means communicated in written form with proof of receipt.
- 8.2 A notice shall be effective when delivered or on the notice's effective date, whichever is later.

### 9. Governing Law

- 9.1 The Contract shall be governed by and interpreted in accordance with the laws of the Purchaser's Country, unless otherwise specified in the **SCC**.

- 10. Settlement of Disputes**
- 10.1 The Purchaser and the Supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.
- 10.2 If, after twenty-eight (28) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Purchaser or the Supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the Contract. Arbitration proceedings shall be conducted in accordance with the rules of procedure **specified in the SCC**.
- 10.3 Notwithstanding any reference to arbitration herein,
- (a) The parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and
- (b) The Purchaser shall pay the Supplier any monies due the Supplier.
- 11. Inspections and Audit by the AFD**
- 11.1 The Supplier shall keep, and shall make all reasonable efforts to cause its Subcontractors to keep accurate and systematic accounts and records, in respect of the Goods in such form and details as will clearly identify relevant time changes and costs.
- 11.2 The Supplier shall permit, and shall cause its Subcontractors and consultants to permit, the AFD and/or persons appointed by the AFD to inspect the Supplier's offices and all accounts and records relating to the performance of the Contract and the submission of the bid, and to have such accounts and records audited by auditors appointed by the AFD if requested by the AFD.
- 12. Scope of Supply**
- 12.1 The Goods and Related Services to be supplied shall be as specified in the Schedule of Requirements.
- 13. Delivery and Documents**
- 13.1 Subject to GCC Sub-Clause 33.1, the Delivery of the Goods and Completion of the Related Services shall be in accordance with the Delivery and Completion Schedule specified in the Schedule of Requirements. The details of shipping and other documents to be furnished by the Supplier are specified in the **SCC**.
- 14. Supplier's Responsibilities**
- 14.1 The Supplier shall supply all the Goods and Related Services included in the Scope of Supply in accordance with GCC Clause 12, and the Delivery and Completion Schedule, as per GCC Clause 13.
- 15. Contract Price**
- 15.1 Prices charged by the Supplier for the Goods supplied and the Related Services performed under the Contract shall not vary from the prices



- quoted by the Supplier in its bid, with the exception of any price adjustments authorized in the **SCC**.
- 16. Terms of Payment**
- 16.1 The Contract Price, including any Advance Payments, if applicable, shall be paid as specified in the **SCC**.
- 16.2 The Supplier's request for payment shall be made to the Purchaser in writing, accompanied by invoices describing, as appropriate, the Goods delivered and Related Services performed, and by the documents submitted pursuant to GCC Clause 13 and upon fulfillment of all other obligations stipulated in the Contract.
- 16.3 Payments shall be made promptly by the Purchaser, but in no case later than sixty (60) days after submission of an invoice or request for payment by the Supplier, and after the Purchaser has accepted it.
- 16.4 The currencies in which payments shall be made to the Supplier under this Contract shall be those in which the bid price is expressed.
- 16.5 In the event that the Purchaser fails to pay the Supplier any payment by its due date or within the period set forth in the **SCC**, the Purchaser shall pay to the Supplier interest on the amount of such delayed payment at the rate shown in the **SCC**, for the period of delay until payment has been made in full, whether before or after judgment or arbitration award.
- 17. Taxes and Duties**
- 17.1 For goods manufactured outside the Purchaser's Country, the Supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the Purchaser's Country.
- 17.2 For goods manufactured within the Purchaser's country, the Supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted Goods to the Purchaser.
- 17.3 If any tax exemptions, reductions, allowances or privileges may be available to the Supplier in the Purchaser's Country as specified in the **SCC**, the Purchaser shall use its best efforts to enable the Supplier to benefit from any such tax savings to the maximum allowable extent.
- 18. Performance Security**
- 18.1 The Supplier shall, within twenty-eight (28) days of the notification of contract award, provide a performance security for the performance of the Contract in the amount specified in the **SCC**.
- 18.2 The proceeds of the Performance Security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.
- 18.3 The Performance Security shall be denominated in the currency(ies) of the Contract, or in a freely convertible currency acceptable to the Purchaser; and shall be in one of the format stipulated by the

Purchaser in the **SCC**, or in another format acceptable to the Purchaser.

18.4 The Performance Security shall be discharged by the Purchaser and returned to the Supplier not later than twenty-eight (28) days following the date of Completion of the Supplier's performance obligations under the Contract, including any warranty obligations, unless specified otherwise in the **SCC**.

**19. Copyright**

19.1 The copyright in all drawings, documents, and other materials containing data and information furnished to the Purchaser by the Supplier herein shall remain vested in the Supplier, or, if they are furnished to the Purchaser directly or through the Supplier by any third party, including suppliers of materials, the copyright in such materials shall remain vested in such third party.

**20. Confidential Information**

20.1 The Purchaser and the Supplier shall keep confidential and shall not, without the written consent of the other party hereto, divulge to any third party any documents, data, or other information furnished directly or indirectly by the other party hereto in connection with the Contract, whether such information has been furnished prior to, during or following completion or termination of the Contract. Notwithstanding the above, the Supplier may furnish to its Subcontractor such documents, data, and other information it receives from the Purchaser to the extent required for the Subcontractor to perform its work under the Contract, in which event the Supplier shall obtain from such Subcontractor an undertaking of confidentiality similar to that imposed on the Supplier under GCC Clause 20.

20.2 The Purchaser shall not use such documents, data, and other information received from the Supplier for any purposes unrelated to the contract. Similarly, the Supplier shall not use such documents, data, and other information received from the Purchaser for any purpose other than the performance of the Contract.

20.3 The obligation of a party under GCC Sub-Clauses 20.1 and 20.2 above, however, shall not apply to information that:

- (a) The Purchaser or Supplier need to share with the AFD or other institutions participating in the financing of the Contract;
- (b) Now or hereafter enters the public domain through no fault of that party;
- (c) Can be proven to have been possessed by that party at the time of disclosure and which was not previously obtained, directly or indirectly, from the other party; or
- (d) Otherwise lawfully becomes available to that party from a third party that has no obligation of confidentiality.

20.4 The above provisions of GCC Clause 20 shall not in any way modify any undertaking of confidentiality given by either of the parties hereto

- prior to the date of the Contract in respect of the Supply or any part thereof.
- 20.5 The provisions of GCC Clause 20 shall survive completion or termination, for whatever reason, of the Contract.
- 21. Subcontracting**
- 21.1 The Supplier shall notify the Purchaser in writing of all subcontracts awarded under the Contract if not already specified in the bid. Such notification, in the original bid or later shall not relieve the Supplier from any of its obligations, duties, responsibilities, or liability under the Contract.
- 21.2 Subcontracts shall comply with the provisions of GCC Clauses 3 and 7.
- 22. Specifications and Standards**
- 22.1 Technical Specifications and Drawings
- (a) The Goods and Related Services supplied under this Contract shall conform to the technical specifications and standards mentioned in Section VII, Schedule of Requirements and, when no applicable standard is mentioned, the standard shall be equivalent or superior to the official standards whose application is appropriate to the Goods' country of origin;
- (b) The Supplier shall be entitled to disclaim responsibility for any design, data, drawing, specification or other document, or any modification thereof provided or designed by or on behalf of the Purchaser, by giving a notice of such disclaimer to the Purchaser;
- (c) Wherever references are made in the Contract to codes and standards in accordance with which it shall be executed, the edition or the revised version of such codes and standards shall be those specified in the Schedule of Requirements. During Contract execution, any changes in any such codes and standards shall be applied only after approval by the Purchaser and shall be treated in accordance with GCC Clause 33.
- 23. Packing and Documents**
- 23.1 The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their named place of destination, as indicated in the Contract. During transit, the packing shall be sufficient to withstand, without limitation, rough handling and exposure to extreme temperatures, salt and precipitation, and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the goods' named place of destination and the absence of heavy handling facilities at all points in transit.
- 23.2 The packing, 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 in the **SCC**, and in any other instructions ordered by the Purchaser.

- 24. Insurance**
- 24.1 Unless otherwise specified in the **SCC**, the Goods supplied under the Contract shall be fully insured—in a freely convertible currency from an eligible country—against loss or damage incidental to manufacture or acquisition, transportation, storage, and delivery, in accordance with the applicable Incoterms or in the manner specified in the **SCC**.
- 25. Transportation**
- 25.1 Unless otherwise specified in the **SCC**, responsibility for arranging transportation of the Goods shall be in accordance with the specified Incoterms.
- 25.2 The Supplier may be required to provide any or all of the following services, including additional services, if any, specified in SCC:
- (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 obligations under this Contract; and
  - (e) Training of the Purchaser’s personnel, at the Supplier’s plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied Goods.
- 25.3 Prices charged by the Supplier for incidental services, if not included in the Contract Price for the Goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services.
- 26. Inspections and Tests**
- 26.1 The Supplier shall at its own expense and at no cost to the Purchaser carry out all such tests and/or inspections of the Goods and Related Services as are specified in the **SCC**.
- 26.2 The inspections and tests may be conducted on the premises of the Supplier or its Subcontractor, and/or at the Goods’ named place of destination, or in another place in the Purchaser’s Country as specified in the **SCC**. Subject to GCC Sub-Clause 26.3, if conducted on the premises of the Supplier or its Subcontractor, all reasonable facilities and assistance, including access to drawings and production data, shall be furnished to the inspectors at no charge to the Purchaser.
- 26.3 The Purchaser or its designated representative shall be entitled to attend the tests and/or inspections referred to in GCC Sub-Clause 26.2, provided that the Purchaser bear all of its own costs and

expenses incurred in connection with such attendance including, but not limited to, all traveling and board and lodging expenses.

- 26.4 Whenever the Supplier is ready to carry out any such test and inspection, it shall give a reasonable advance notice, including the place and time, to the Purchaser. The Supplier shall obtain from any relevant third party or manufacturer any necessary permission or consent to enable the Purchaser or its designated representative to attend the test and/or inspection.
- 26.5 The Purchaser may require the Supplier to carry out any test and/or inspection not required by the Contract but deemed necessary to verify that the characteristics and performance of the Goods comply with the technical specifications, codes and standards under the Contract, provided that the Supplier's reasonable costs and expenses incurred in the carrying out of such test and/or inspection shall be added to the Contract Price. Further, if such test and/or inspection impedes the progress of manufacturing and/or the Supplier's performance of its other obligations under the Contract, due allowance will be made in respect of the Delivery Dates and Completion Dates and the other obligations so affected.
- 26.6 The Supplier shall provide the Purchaser with a report of the results of any such test and/or inspection.
- 26.7 The Purchaser may reject any Goods or any part thereof that fail to pass any test and/or inspection or do not conform to the specifications. The Supplier shall either rectify or replace such rejected Goods or parts thereof or make alterations necessary to meet the specifications at no cost to the Purchaser, and shall repeat the test and/or inspection, at no cost to the Purchaser, upon giving a notice pursuant to GCC Sub-Clause 26.4.
- 26.8 The Supplier agrees that neither the execution of a test and/or inspection of the Goods or any part thereof, nor the attendance by the Purchaser or its representative, nor the issue of any report pursuant to GCC Sub-Clause 26.6, shall release the Supplier from any warranties or other obligations under the Contract.
- 27. Liquidated Damages**
- 27.1 Except as provided under GCC Clause 32, if the Supplier fails to deliver any or all of the Goods by the Date(s) of delivery or perform the Related Services within the period specified in the Contract, the Purchaser may without prejudice to all its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage specified in the SCC of the delivered price of the delayed Goods or unperformed Services for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the percentage specified in those SCC. Once the maximum is reached, the Purchaser may terminate the Contract pursuant to GCC Clause 35.
- 28. Warranty**
- 28.1 The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent

improvements in design and materials, unless provided otherwise in the Contract.

- 28.2 Subject to GCC Sub-Clause 22.1(b), the Supplier further warrants that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in the country of named place of destination.
- 28.3 Unless otherwise specified in the **SCC**, the warranty shall remain valid for twelve (12) months after the Goods, or any portion thereof as the case may be, have been delivered to and accepted at the named place of destination indicated in the **SCC**, or for eighteen (18) months after the date of shipment from the port or place of loading in the country of origin, whichever period concludes earlier.
- 28.4 The Purchaser shall give notice to the Supplier stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof. The Purchaser shall afford all reasonable opportunity for the Supplier to inspect such defects.
- 28.5 Upon receipt of such notice, the Supplier shall, within the period specified in the **SCC**, expeditiously repair or replace the defective Goods or parts thereof, at no cost to the Purchaser.
- 28.6 If having been notified, the Supplier fails to remedy the defect within the period specified in the **SCC**, the Purchaser may proceed to take within a reasonable period such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.

**29. Patent Indemnity**

- 29.1 The Supplier shall, subject to the Purchaser's compliance with GCC Sub-Clause 29.2, indemnify and hold harmless the Purchaser and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which the Purchaser may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract by reason of:
- (a) The installation of the Goods by the Supplier or the use of the Goods in the country where the Site is located; and
- (b) The sale in any country of the products produced by the Goods.

Such indemnity shall not cover any use of the Goods or any part thereof other than for the purpose indicated by or to be reasonably inferred from the Contract, neither any infringement resulting from the use of the Goods or any part thereof, or any products produced

thereby in association or combination with any other equipment, plant, or materials not supplied by the Supplier, pursuant to the Contract.

- 29.2 If any proceedings are brought or any claim is made against the Purchaser arising out of the matters referred to in GCC Sub-Clause 29.1, the Purchaser shall promptly give the Supplier a notice thereof, and the Supplier may at its own expense and in the Purchaser's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim.
- 29.3 If the Supplier fails to notify the Purchaser within twenty-eight (28) days after receipt of such notice that it intends to conduct any such proceedings or claim, then the Purchaser shall be free to conduct the same on its own behalf.
- 29.4 The Purchaser shall, at the Supplier's request, afford all available assistance to the Supplier in conducting such proceedings or claim, and shall be reimbursed by the Supplier for all reasonable expenses incurred in so doing.
- 29.5 The Purchaser shall indemnify and hold harmless the Supplier and its employees, officers, and Subcontractors from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which the Supplier may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract arising out of or in connection with any design, data, drawing, specification, or other documents or materials provided or designed by or on behalf of the Purchaser.
- 30. Limitation of Liability**
- 30.1 Except in cases of criminal negligence or willful misconduct,
- (a) The Supplier shall not be liable to the Purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Supplier to pay liquidated damages to the Purchaser; and
- (b) The aggregate liability of the Supplier to the Purchaser, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment, or to any obligation of the supplier to indemnify the purchaser with respect to patent infringement
- 31. Change in Laws and Regulations**
- 31.1 Unless otherwise specified in the Contract, if after the date of 28 days prior to date of Bid submission, any law, regulation, ordinance, order or bylaw having the force of law is enacted, promulgated, abrogated, or changed in the place of the Purchaser's country where the Site is

located (which shall be deemed to include any change in interpretation or application by the competent authorities) that subsequently affects the Delivery Date and/or the Contract Price, then such Delivery Date and/or Contract Price shall be correspondingly increased or decreased, to the extent that the Supplier has thereby been affected in the performance of any of its obligations under the Contract. Notwithstanding the foregoing, such additional or reduced cost shall not be separately paid or credited if the same has already been accounted for in the price adjustment provisions where applicable, in accordance with GCC Clause 15.

**32. Force Majeure**

32.1 The Supplier shall not be liable for forfeiture of its Performance Security, liquidated damages, or termination for default if and to the extent that its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

32.2 For purposes of this Clause, “Force Majeure” means an event or situation beyond the control of the Supplier that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Supplier. Such events may include, but not be limited to, acts of the Purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.

32.3 If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

**33. Change Orders and Contract Amendments**

33.1 The Purchaser may at any time order the Supplier through notice in accordance GCC Clause 8, to make changes within the general scope of the Contract in any one or more of the following:

- (a) Drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Purchaser;
- (b) The method of shipment or packing;
- (c) The place of delivery; and
- (d) The Related Services to be provided by the Supplier.

33.2 If any such change causes an increase or decrease in the cost of, or the time required for, the Supplier’s performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or in the Delivery/Completion Schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this Clause must be asserted within twenty-eight



(28) days from the date of the Supplier's receipt of the Purchaser's change order.

33.3 Prices to be charged by the Supplier for any Related Services that might be needed but which were not included in the Contract shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services.

33.4 Subject to the above, no variation in or modification of the terms of the Contract shall be made except by written amendment signed by the parties.

**34. Extensions of Time**

34.1 If at any time during performance of the Contract, the Supplier or its subcontractors should encounter conditions impeding timely delivery of the Goods or completion of Related Services pursuant to GCC Clause 13, the Supplier shall promptly notify the Purchaser in writing of the delay, its likely duration, and its cause. As soon as practicable after receipt of the Supplier's notice, the Purchaser shall evaluate the situation and may at its discretion extend the Supplier's time for performance, in which case the extension shall be ratified by the parties by amendment of the Contract.

34.2 Except in case of Force Majeure, as provided under GCC Clause 32, a delay by the Supplier in the performance of its Delivery and Completion obligations shall render the Supplier liable to the imposition of liquidated damages pursuant to GCC Clause 27, unless an extension of time is agreed upon, pursuant to GCC Sub-Clause 34.1.

**35. Termination**

35.1 Termination for Default

(a) The Purchaser, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the Supplier, may terminate the Contract in whole or in part:

(i) If the Supplier fails to deliver any or all of the Goods within the period specified in the Contract, or within any extension thereof granted by the Purchaser pursuant to GCC Clause 34;

(ii) If the Supplier fails to perform any other obligation under the Contract; or

(iii) If the Supplier, in the judgment of the Purchaser has engaged in fraud and corruption, as defined in GCC Clause 3, in competing for or in executing the Contract.

(b) In the event the Purchaser terminates the Contract in whole or in part, pursuant to GCC Clause 35.1(a), the Purchaser may procure, upon such terms and in such manner as it deems appropriate, Goods or Related Services similar to those

undelivered or not performed, and the Supplier shall be liable to the Purchaser for any additional costs for such similar Goods or Related Services. However, the Supplier shall continue performance of the Contract to the extent not terminated.

### 35.2 Termination for Insolvency

- (a) The Purchaser may at any time terminate the Contract by giving notice to the Supplier if the Supplier becomes bankrupt or otherwise insolvent. In such event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to the Purchaser.

### 35.3 Termination for Convenience

- (a) The Purchaser, by notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Purchaser's convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective;
- (b) The Goods that are complete and ready for shipment within twenty-eight (28) days after the Supplier's receipt of notice of termination shall be accepted by the Purchaser at the Contract terms and prices. For the remaining Goods, the Purchaser may elect:
  - (i) To have any portion completed and delivered at the Contract terms and prices; and/or
  - (ii) To cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and Related Services and for materials and parts previously procured by the Supplier.

## 36. Assignment

- 36.1 Neither the Purchaser nor the Supplier shall assign, in whole or in part, their obligations under this Contract, except with prior written consent of the other party.

## 37. Export Restriction

- 37.1 Notwithstanding any obligation under the Contract to complete all export formalities, any export restrictions attributable to the Purchaser, to the country of the Purchaser, or to the use of the products/goods, systems or services to be supplied, which arise from trade regulations from a country supplying those products/goods, systems or services, and which substantially impede the Supplier from meeting its obligations under the Contract, shall release the Supplier from the obligation to provide deliveries or services, always provided, however, that the Supplier can demonstrate to the satisfaction of the Purchaser and of the AFD that it has completed all formalities in a timely manner, including applying for permits, authorizations and

licenses necessary for the export of the products/goods, systems or services under the terms of the Contract. Termination of the Contract on this basis shall be for the Purchaser's convenience pursuant to Sub-Clause 35.3.

## Section IX. Special Conditions of Contract

The following Special Conditions of Contract (SCC) shall supplement and / or amend the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.

*[The Purchaser shall select insert the appropriate wording using the samples below or other acceptable wording, and delete the text in italics]*

<b>GCC 1.1(i)</b>	The Purchaser's country is: <b>Mauritius</b>
<b>GCC 1.1(j)</b>	The Purchaser is: <b>Indian Ocean Commission</b>
<b>GCC 1.1 (o)</b>	<p>The Project Sites/Named Place of Destinations are:</p> <p>&lt;Lot 1 :</p> <ul style="list-style-type: none"> <li>• <i>Comores, at « l'Agence Nationale de l'Aviation Civile et de la Météorologie (ANACM) », Moroni</i></li> <li>• <i>Mauritius, at the « Mauritius Meteorological Services (MMS) », Vacoas</i></li> <li>• <i>Seychelles, at the « Seychelles Meteorological Agency (SMA) », Mahé&gt;</i></li> </ul> <p>&lt;Lot 2 :</p> <ul style="list-style-type: none"> <li>• <i>Madagascar at the « Direction Générale de la Météorologie (DGM) », Antananarivo&gt;</i></li> </ul>
<b>GCC 4.2</b>	<p>The meaning of the trade terms shall be as prescribed by Incoterms.</p> <p>The version edition of Incoterms shall be Incoterms 2010.</p> <p>However, the definition of the place and date associated with "delivery" is modified as follows:</p> <ul style="list-style-type: none"> <li>(a) Under "CIP" Incoterms defines "delivery" as the place and date where risk transfers from the seller to the buyer.</li> <li>(b) In these Bidding Documents, when using "CIP" and not referring to the transfer of risk, the term "delivery" shall be interpreted as the date and place where the Goods and Related Services arrive at the named place of destination, and this date shall be reflected in the Delivery and Completion Schedule.</li> </ul>
<b>GCC 5.1</b>	The governing and communication language shall be English
<b>GCC 7.1</b>	Goods and services from countries under embargo from France, the European Union or the United Nations are not eligible.

<b>GCC 8.1</b>	<p>For <b>notices</b>, the Purchaser's address shall be:</p> <p><b>General Secretariat of Indian Ocean Commission (IOC)</b>  <b>Attention : Gina BONNE, Chargé de mission</b>  <b>Blue Tower, 3rd floor, Institute Road, Ebene, Maurice</b>  <b>Tel : (230) 402 6100</b>  <b>Email : <a href="mailto:gina.bonne@coi-ioc.org">gina.bonne@coi-ioc.org</a> with copy to <a href="mailto:smc@coi-ioc.org">smc@coi-ioc.org</a></b></p>
<b>GCC 9.1</b>	The governing law shall be the law of: <b>Mauritius</b>
<b>GCC 10.2</b>	<p>The rules of procedure for arbitration proceedings pursuant to GCC Clause 10.2 shall be as follows:</p> <p>(a) <b>Contract with foreign Supplier:</b></p> <p>GCC 10.2—Any dispute, controversy or claim arising out of or relating to this Contract, or breach, termination or invalidity thereof, shall be settled by arbitration in accordance with the UNCITRAL Arbitration Rules as at present in force.</p> <p>(b) <b>Contracts with Supplier national of the Purchaser's country:</b></p> <p>In the case of a dispute between the Purchaser and a Supplier who is a national of the Purchaser's country, the dispute shall be referred to adjudication or arbitration in accordance with the laws of the Purchaser's country.</p>
<b>GCC 13.1</b>	<p><b>For Goods supplied from abroad:</b></p> <p>Upon shipment, the Supplier shall notify the Purchaser and the Insurance Company by cable or by electronic way previously agreed between parties the full details of the shipment, including Contract number, description of Goods, quantity, the mode of transport, the bill of lading number and date, place of loading, date of shipment, place of discharge, etc. The Supplier shall mail the following documents to the Purchaser, with a copy to the Insurance Company:</p> <ul style="list-style-type: none"> <li>(i) Copies of the Supplier's invoice showing Goods' description, quantity, unit price, and total amount;</li> <li>(ii) Original and two (2) copies of the negotiable, clean, on-board bill of lading marked "freight prepaid" and two (2) copies of nonnegotiable bill of lading;</li> <li>(iii) Copies of the packing list identifying contents of each package;</li> <li>(iv) Insurance certificate;</li> <li>(v) Manufacturer's or Supplier's warranty certificate;</li> <li>(vi) Inspection certificate, issued by the nominated inspection agency, and the Supplier's factory inspection report; and</li> <li>(vii) Certificate of origin.</li> </ul> <p>The above documents shall be received by the Purchaser at least one week before arrival of the Goods at the place of arrival and, if not received, the Supplier will be responsible for any consequent expenses.</p>

	<p><b>For Goods from within the Purchaser's country:</b></p> <p>Upon delivery of the Goods to the transporter, the Supplier shall notify the Purchaser and mail the following documents to the Purchaser:</p> <ul style="list-style-type: none"> <li>(i) copies of the Supplier's invoice showing Goods' description, quantity, unit price, and total amount;</li> <li>(ii) delivery note, railway receipt, or truck receipt;</li> <li>(iii) Manufacturer's or Supplier's warranty certificate;</li> <li>(iv) inspection certificate issued by the nominated inspection agency, and the Supplier's factory inspection report; and</li> <li>(v) certificate of origin.</li> </ul> <p>The above documents shall be received by the Purchaser before arrival of the Goods and, if not received, the Supplier will be responsible for any consequent expenses.</p>
GCC 15.1	The prices charged for the Goods supplied and the related Services performed shall not be adjustable.
GCC 16.1	<p>GCC 16.1—The method and conditions of payment to be made to the Supplier under this Contract shall be as follows:</p> <p><b>Payment for Goods supplied from abroad:</b></p> <p>Payment of foreign currency portion shall be made in US Dollar in the following manner:</p> <ul style="list-style-type: none"> <li>(i) <b>Advance Payment:</b> Ten (10) percent of the Contract Price shall be paid within thirty (30) days of signing of the Contract, and upon submission of claim and a bank guarantee for equivalent amount valid until the Goods are delivered and, in the form, provided in the bidding documents or another form acceptable to the Purchaser;</li> <li>(ii) <b>Second advance Payment after factory acceptance</b> twenty-five (25) percent of the Contract Price shall be paid within thirty (30) days of signing of the Contract, and upon submission of claim and a bank guarantee for equivalent amount valid until the Goods are delivered and, in the form, provided in the bidding documents or another form acceptable to the Purchaser;</li> <li>(iii) <b>On delivery:</b> fifty (50) percent of the Contract Price shall be paid on receipt of the Supplies against submission of the documents specified in GCC Clause 13.</li> <li>(iv) <b>On Acceptance:</b> fifteen (15) percent of the Contract Price of Goods received shall be paid within thirty (30) days of receipt of the Goods acceptance test and Training upon submission of claim supported by the acceptance certificate issued by the Purchaser.</li> </ul> <p>Payment of local currency portion shall be made in US Dollar within thirty (30) days of presentation of claim supported by a certificate from the Purchaser</p>

	<p>declaring that the Goods have been delivered and that all other contracted Services have been performed.</p> <p><b>Payment for Goods and Services supplied from within the Purchaser's country:</b></p> <p>Payment for Goods and Services supplied from within the Purchaser's country shall be made in US Dollar, as follows:</p> <ul style="list-style-type: none"> <li>(i) <b>Advance Payment:</b> Ten (10) percent of the Contract Price shall be paid within forty-five (45) days of signing of the Contract against a simple invoice and a bank guarantee for the equivalent amount and in the form provided in the bidding documents or another form acceptable to the Purchaser;</li> <li>(ii) <b>Second advance Payment after factory acceptance</b> twenty-five (25) percent of the Contract Price shall be paid within forty five (45) days of signing of the Contract, and upon submission of claim and a bank guarantee for equivalent amount valid until the Goods are delivered and in the form provided in the bidding documents or another form acceptable to the Purchaser;</li> <li>(iii) <b>On Delivery:</b> fifty (50) percent of the Contract Price shall be paid within sixty (60) days on receipt of the Goods and upon submission of the documents specified in GCC Clause 13;</li> <li>(iv) <b>On Acceptance:</b> The remaining fifteen (15) percent of the Contract Price shall be paid to the Supplier within thirty (30) days after the date of the acceptance certificate for the respective delivery issued by the Purchaser.</li> </ul>
<b>GCC 16.1</b>	<p>Payment to the Supplier of the amounts due in each currency shall be made into the following bank accounts:</p> <p><i>[insert bank account details at the time of contract signing]</i></p>
<b>GCC 16.5</b>	<p>The payment-delay period after which the Purchaser shall pay interest to the supplier shall be 90 days.</p> <p>The interest rate for payments in foreign currency that shall be applied is <i>[insert LIBOR + 200 bp]</i>.</p> <p>The interest rate for payments in local currency that shall be applied is <i>[insert rate]</i>.</p>
<b>GCC 17.3</b>	<p>The following taxes, duties and fees exemptions apply to the Contract:</p> <p>The Buyer has obtained an exemption applicable to the Contract, concerning the payment of VAT and import taxes in the Buyer's country in accordance with Note No. 1130/39/8 V.2 dated 18 November 1998 from the Ministry of Foreign Affairs and International Trade of the Republic of Mauritius.</p> <p>The Buyer has taken steps to obtain exemption rulings in the three other countries (Comoros, Madagascar and Seychelles).</p>

<b>GCC 18.1</b>	The amount of the Performance Security shall be: <b>ten percent (10%) of the contract price</b>
<b>GCC 18.3</b>	The Performance Security shall be in the form of: <b>a Bank Guarantee</b> The Performance security shall be denominated in the currencies of payment of the Contract, in accordance with their portions of the Contract Price.
<b>GCC 23.2</b>	The packing, marking and documentation within and outside the packages shall be comply with the technical requirements described in section VII, point 3 of this dossier. However : <ul style="list-style-type: none"> <li>• Supplies will be delivered in packaging to prevent damage or deterioration during transit until arrival at destination.</li> <li>• The packaging becomes the property of the beneficiary, subject to respect for the environment.</li> </ul>
<b>GCC 24.1</b>	The insurance coverage shall be as specified in the Incoterms.
<b>GCC 25.1</b>	Responsibility for transportation of the Goods shall be as specified in the Incoterms.
<b>GCC 25.2</b>	Incidental services to be provided are: <ul style="list-style-type: none"> <li>• Servicing and maintenance</li> <li>• spare parts</li> <li>• consumables</li> </ul> <p><i>(could be included in the Contract Price )</i>.</p>
<b>GCC 26.1</b>	The inspections and tests shall be as specified in Section VII - Schedule of Requirements
<b>GCC 26.2</b>	The Inspections and tests shall be conducted at the supplier and in the four meteorological services of the beneficiary countries: Comoros, Madagascar, Mauritius and Seychelles.
<b>GCC 27.1</b>	The liquidated damage shall be 0.5% per week
<b>GCC 27.1</b>	The maximum amount of liquidated damages shall be: 10%
<b>GCC 28.3</b>	The period of validity of the Warranty shall be: 360 days or 720 days For purposes of the Warranty, the named place(s) of destination(s) shall be: <ul style="list-style-type: none"> <li>• Comores, at « Agence Nationale de l'Aviation Civile et de la Météorologie (ANACM) », Moroni</li> <li>• Mauritius, at « Mauritius Meteorological Services (MMS) », Vacoas</li> <li>• Madagascar at « Direction Générale de la Météorologie (DGM) », Antananarivo</li> </ul> AT Seychelles, at « Seychelles Meteorological Agency (SMA) », Mahé
<b>GCC 28.5 and GCC 28.6</b>	The period for repair or replacement shall be: Twenty-one days.



## **Appendix 1 to Special Conditions of Contract : Prohibited Practices Policy and environmental and social responsibility**

### **1. Corrupt and Fraudulent Practices**

The Contracting Authority and the suppliers, contractors, subcontractors, consultants or subconsultants must observe the highest standard of ethics during the procurement process and performance of the contract. The Contracting Authority means the Purchaser, the Employer, the Client, as the case may be, for the procurement of goods, works, plants, consulting services or non-consulting services.

By signing the Statement of Integrity the suppliers, contractors, subcontractors, consultants or subconsultants declare that (i) “it did not engage in any practice likely to influence the contract award process to the Contracting Authority’s detriment, and that it did not and will not get involved in any anti-competitive practice”, and that (ii) “the procurement process and the performance of the contract did not and shall not give rise to any act of corruption or fraud”.

Moreover, the AFD requires including in the Procurement Documents and AFD-financed contracts a provision requiring that suppliers, contractors, subcontractors, consultants or subconsultants will permit the AFD to inspect their accounts and records relating to the procurement process and performance of the AFD-financed contract, and to have them audited by auditors appointed by the AFD.

The AFD reserves the right to take any action it deems appropriate to check that these ethics rules are observed and reserves, in particular, the rights to:

- (a) Reject a proposal for a contract award if it is established that during the selection process the bidder or consultant that is recommended for the award has been convicted of corruption, directly or by means of an agent, or has engaged in fraud or anti-competitive practices in view of being awarded the Contract;
- (b) Declare misprocurement when it is established that, at any time, the Contracting Authority, the suppliers, contractors, subcontractors, consultants or subconsultants their representatives have engaged in acts of corruption, fraud or anti-competitive practices during the procurement process or performance of the contract without the Contracting Authority having taken appropriate action in due time satisfactory to the AFD to remedy the situation, including by failing to inform the AFD at the time they knew of such practices.

The AFD defines, for the purposes of this provision, the terms set forth below as follows:

- (a) Corruption of a Public Officer means:
  - (i) The act of promising, offering or giving to a Public Officer, directly or indirectly, an undue advantage of any kind for himself or for another person or entity, for such Public Officer to act or refrain from acting in his official capacity; or
  - (ii) The act by which a Public Officer solicits or accepts, directly or indirectly, an undue advantage of any kind for himself or for another person or entity, for such Public Officer to act or refrain from acting in his official capacity.
- (b) A Public Officer shall be construed as meaning:
  - (i) Any person who holds a legislative, executive, administrative or judicial mandate (within the country of the Contracting Authority) regardless of whether that person was nominated or elected, regardless of the permanent or temporary, paid or unpaid nature of the position and regardless of the hierarchical level the person occupies;

- (ii) Any other person who performs a public function, including for a State institution or a State-owned company, or who provides a public service;
  - (iii) Any other person defined as a Public Officer by the national laws of the country of the Contracting Authority.
- (c) Corruption of a private person means:
- (i) The act of promising, offering or giving to any person other than a Public Officer, directly or indirectly, an undue advantage of any kind for himself or for another person or entity, for such person to perform or refrain from performing any act in breach of its legal, contractual or professional obligations; or
  - (ii) The act by which any person other than a Public Officer solicits or accepts, directly or indirectly, an undue advantage of any kind for himself or for another person or entity, for such person to perform or refrain from performing any act in breach of its legal, contractual or professional obligations;
- (d) Fraud means any dishonest conduct (act or omission), whether or not it constitutes a criminal offence, deliberately intended to deceive others, to intentionally conceal items, to violate or vitiate consent, to circumvent legal or regulatory requirements and/or to violate internal rules in order to obtain illegitimate profit.
- (e) Anti-competitive practices mean:
- (i) Any concerted or implied practices which have as their object or effect the prevention, restriction or distortion of competition within a marketplace, especially where they (i) limit access to the marketplace or free exercise of competition by other undertakings, (ii) prevent free, competition-driven price determination by artificially causing price increases or decreases, (iii) restrict or control production, markets, investments or technical progress; or (iv) divide up market shares or sources of supply;
  - (ii) Any abuse by one undertaking or a group of undertakings which hold a dominant position on an internal market or on a substantial part of it;
  - (iii) Any practice whereby prices are quoted or set unreasonably low, the object of which is to eliminate an undertaking or any of its products from a market or to prevent it from entering the market.

## 2. **Environmental and social responsibility**

In order to promote sustainable development, the AFD seeks to ensure that internationally recognised environmental and social standards are complied with. Candidates for AFD-financed contracts shall consequently undertake in the Statement of Integrity to:

- (i) Comply with and ensure that all their subcontractors or subconsultants comply with international environmental and labour standards, consistent with applicable law and regulations in the country of implementation of the contract, including the fundamental conventions of the International Labour Organisation (ILO) and international environmental treaties;
- (ii) Implement environmental and social risks mitigation measures when specified in the environmental and social management plan (ESMP) provided by the Contracting Authority.

### Attachment: Price Adjustment Formula

If in accordance with GCC 15.1, prices shall be adjustable, the following method shall be used to calculate the price adjustment:

- 15.1 Prices payable to the Supplier, as stated in the Contract, shall be subject to adjustment during performance of the Contract to reflect changes in the cost of labor and material components in accordance with the formula:

$$P_1 = P_0 \left[ a + \frac{bL_1}{L_0} + \frac{cM_1}{M_0} \right] - P_0$$

$$a+b+c = 1$$

in which:

- $P_1$  = adjustment amount payable to the Supplier;  
 $P_0$  = Contract Price (base price);  
 $a$  = fixed element representing profits and overheads included in the Contract Price and generally in the range of five (5) to fifteen (15) percent;  
 $b$  = estimated percentage of labor component in the Contract Price;  
 $c$  = estimated percentage of material component in the Contract Price;  
 $L_0, L_1$  = labor indices applicable to the appropriate industry in the country of origin on the base date and date for adjustment, respectively;  
 $M_0, M_1$  = material indices for the major raw material on the base date and date for adjustment, respectively, in the country of origin.

The coefficients a, b, and c as specified by the Purchaser are as follows:

- $a = [insert\ value\ of\ coefficient]$   
 $b = [insert\ value\ of\ coefficient]$   
 $c = [insert\ value\ of\ coefficient]$

The Bidder shall indicate the source of the indices and the base date indices in its bid.

Base date = thirty (30) days prior to the deadline for submission of the bids.

Date of adjustment =  $[insert\ number\ of\ weeks]$  weeks prior to date of shipment (representing the mid-point of the period of manufacture).

The above price adjustment formula shall be invoked by either party subject to the following further conditions:

- (a) No price adjustment shall be allowed beyond the original delivery dates unless specifically stated in the extension letter. As a rule, no price adjustment shall be allowed for periods of delay for which the Supplier is entirely responsible. The Purchaser will, however, be entitled to any decrease in the prices of the Goods and Services subject to adjustment;
- (b) If the currency in which the Contract Price  $P_0$  is expressed is different from the currency of origin of the labor and material indices, a correction factor will be applied to avoid incorrect adjustments of the Contract Price. The correction factor shall correspond to the

ratio of exchange rates between the two currencies on the base date and the date for adjustment as defined above;

- (c) No price adjustment shall be payable on the portion of the Contract Price paid to the Supplier as advance payment.

## Section X. Contract Forms

This Section contains forms which, once completed, will form part of the Contract. The forms for Performance Security and Advance Payment Security, when required, shall only be completed by the successful Bidder after contract award.

### Table of Forms

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<b>Contract Agreement .....</b>	<b>173</b>
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## Letter of Acceptance

*[letterhead paper of the Purchaser]*

*[date]*

To: *[name and address of the Supplier]*

Subject: **Notification of Award Contract No.** \_\_\_\_\_

This is to notify you that your Bid dated \_\_\_\_\_ *[insert date]* for execution of the \_\_\_\_\_ *[insert name of the contract and identification number,*  
*as given in the SCC]* for the Contract Price of \_\_\_\_\_ *[insert amount in*  
*numbers and words and name of currency]*, as corrected and modified in accordance with the Instructions to Bidders is hereby accepted by our institution.

You are requested to furnish the Performance Security within 28 days in accordance with the Conditions of Contract, using for that purpose the Performance Security Form included in Section X, Contract Forms, of the Bidding Documents.

Authorized Signature: \_\_\_\_\_

Name and Title of Signatory: \_\_\_\_\_

Name of Institution: \_\_\_\_\_

**Attachment: Contract Agreement**

## Contract Agreement

THIS AGREEMENT made

the [ *insert number* ] day of [ *insert: month* ], [ *insert: year* ].

BETWEEN

- (1) [ *insert complete name of Purchaser* ], a [ *insert description of type of legal entity, for example, an agency of the Ministry of .... of the State of {insert name of Country of Purchaser } , or corporation incorporated under the laws of { insert name of Country of Purchaser }* ] and having its principal place of business at [ *insert address of Purchaser* ] (hereinafter called “the Purchaser”), and
- (2) [ *insert name of Supplier* ], a corporation incorporated under the laws of [ *insert: country of Supplier* ] and having its principal place of business at [ *insert: address of Supplier* ] (hereinafter called “the Supplier”).

WHEREAS the Purchaser invited bids for certain Goods and ancillary services, viz., [ *insert brief description of Goods and Services* ] and has accepted a Bid by the Supplier for the supply of those Goods and Services in the sum of [ *insert Contract Price in words and figures, expressed in the Contract currency (ies)* ] (hereinafter called “the Contract Price”).

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement. This Agreement shall prevail over all other contract documents.
  - (a) The Letter of Acceptance;
  - (b) The Bid Submission Form and Appendix to Bid Submission Form (including the signed Statement of Integrity);
  - (c) The Addenda Nos. \_\_\_\_\_ (if any);
  - (d) Special Conditions of Contract;
  - (e) General Conditions of Contract;
  - (f) The Specification (including Schedule of Requirements and Technical Specifications);
  - (g) The completed Bidding Forms (including Price Schedules);
  - (h) Any other document listed in GCC as forming part of the Contract.
3. In the event of any discrepancy or inconsistency within the Contract documents, then the documents shall prevail in the order listed above.

4. In consideration of the payments to be made by the Purchaser to the Supplier as specified in this Agreement, the Supplier hereby covenants with the Purchaser to provide the Goods and Services and to remedy defects therein in conformity in all respects with the provisions of the Contract.
5. The Purchaser hereby covenants to pay the Supplier in consideration of the provision of the Goods and Services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of *[insert the name of the Contract governing law country]* on the day, month and year indicated above.

For and on behalf of the Purchaser

Signed: *[insert signature]*

In the capacity of *[insert title or other appropriate designation]*

In the presence of *[insert identification of official witness]*

For and on behalf of the Supplier

Signed: *[insert signature of authorized representative(s) of the Supplier]*

In the capacity of *[insert title or other appropriate designation]*

In the presence of *[insert identification of official witness]*



*Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.*

## Performance Security (Bank Guarantee)

**Beneficiary:** *[Insert name and Address of Purchaser]*

**Date:** *[Insert date of issue]*

**PERFORMANCE GUARANTEE No.:** *[Insert guarantee reference number]*

**Guarantor:** *[Insert name and address of place of issue, unless indicated in the letterhead]*

We have been informed that *[insert name of Supplier, which in the case of a joint venture shall be the name of the joint venture]* (hereinafter called "the Applicant") has entered into Contract No. *[insert reference number of the contract]* dated *[insert date]* with the Beneficiary, for the supply of *[insert name of contract and brief description of Goods and related Services]* (hereinafter called "the Contract"). Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.

At the request of the Applicant, we as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of *[insert amount in figures]* (\_\_\_\_\_) *[insert amount in words]*,<sup>1</sup> such sum being payable in the types and proportions of currencies in which the Contract Price is payable, upon receipt by us of the Beneficiary's first demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating that the Applicant is in breach of its obligation(s) under the Contract, without the Beneficiary needing to prove or to show grounds for your demand or the sum specified therein.

This guarantee shall expire, no later than the .... Day of ....., 2...<sup>2</sup>, and any demand for payment under it must be received by us at this office indicated above on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No. 758, except that the supporting statement under Article 15(a) is hereby excluded.

\_\_\_\_\_  
*[signature(s)]*

<sup>1</sup>The Guarantor shall insert an amount representing the percentage of the Accepted Contract Amount specified in the Letter of Acceptance, and denominated either in the currency (ies) of the Contract or a freely convertible currency acceptable to the Beneficiary.

<sup>2</sup>Insert the date twenty-eight days after the expected completion date as described in GC Clause 18.4. The Purchaser should note that in the event of an extension of this date for completion of the Contract, the Purchaser would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Purchaser might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months][one year], in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee."

## Advance Payment Security

*[Guarantor letterhead or SWIFT identifier code]*

**Beneficiary:** *[Insert name and Address of Purchaser]*

**Date:** *[Insert date of issue]*

**ADVANCE PAYMENT GUARANTEE No.:** *[Insert guarantee reference number]*

**Guarantor:** *[Insert name and address of place of issue, unless indicated in the letterhead]*

We have been informed that *[insert name of Supplier, which in the case of a joint venture shall be the name of the joint venture]* (hereinafter called "the Applicant") has entered into Contract No. *[insert reference number of the contract]* dated *[insert date]* with the Beneficiary, for the execution of *[insert name of contract and brief description of Goods and related Services]* (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, an advance payment in the sum *[insert amount in figures]* () *[insert amount in words]* is to be made against an advance payment guarantee.

At the request of the Applicant, we as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of *[insert amount in figures]* (\_\_\_\_\_) *[insert amount in words]*<sup>1</sup> upon receipt by us of the Beneficiary's first demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating either that the Applicant:

- (a) Has used the advance payment for purposes other than toward delivery of Goods; or
- (b) Has failed to repay the advance payment in accordance with the Contract conditions, specifying the amount which the Applicant has failed to repay.

A demand under this guarantee may be presented as from the presentation to the Guarantor of a certificate from the Beneficiary's bank stating that the advance payment referred to above has been credited to the Applicant on its account number *[insert number]* at *[insert name and address of Applicant's bank]*.

The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Applicant as specified in copies of interim statements or payment certificates which shall be presented to us. This guarantee shall expire, at the latest, upon our receipt of a copy of the interim payment certificate indicating that ninety (90) percent of the Accepted Contract Amount,

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<sup>1</sup> *The Guarantor shall insert an amount representing the amount of the advance payment and denominated either in the currency(ies) of the advance payment as specified in the Contract, or in a freely convertible currency acceptable to the Purchaser.*

has been certified for payment, or on the *[insert date<sup>15</sup>]*, whichever is earlier. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No.758.

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*[signature(s)]*

***Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.***

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<sup>15</sup> *Insert the Delivery date of the Goods at the named place of destination stipulated in the Contract Delivery Schedule. The Purchaser should note that in the event of an extension of the time to perform the Contract, the Purchaser would need to request an extension of this Guarantee from the bank. Such request must be in writing and must be made prior to the expiration date established in the Guarantee. In preparing this Guarantee, the Purchaser might consider adding the following text to the Form, at the end of the penultimate paragraph: “We agree to a one-time extension of this Guarantee for a period not to exceed [six months] [one year], in response to the Purchaser’s written request for such extension, such request to be presented to us before the expiry of the Guarantee.”*