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INVITATION TO BID

Supply, Delivery, and Installation of Multi-Hazard Early Warning System in Leyte

ITB No.: ITB/086/PHL/2019

Project: Project Climate Twin Phoenix-RAPID

Country: Philippines

Issued on: 4 June 2019

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Section 1. Letter of Invitation

The United Nations Development Programme (UNDP) hereby invites you to submit a Bid to this Invitation to Bid (ITB) for the above-referenced subject.

This ITB includes the following documents and the General Terms and Conditions of Contract which is inserted in the Bid Data Sheet:

- Section 1: This Letter of Invitation
- Section 2: Instruction to Bidders
- Section 3: Bid Data Sheet (BDS)
- Section 4: Evaluation Criteria
- Section 5: Schedule of Requirements and Technical Specifications
- Section 6: Returnable Bidding Forms
 - Form A: Bid Submission Form
 - Form B: Bidder Information Form
 - Form C: Joint Venture/Consortium/Association Information Form
 - Form D: Qualification Form
 - Form E: Format of Technical Bid
 - Form F: Price Schedule

If you are interested in submitting a Bid in response to this ITB, please prepare your Bid in accordance with the requirements and procedure as set out in this ITB and submit it by the Deadline for Submission of Bids set out in Bid Data Sheet.

Please acknowledge receipt of this ITB by sending an email to procurement.ph@undp.org, indicating whether you intend to submit a Bid or otherwise. You may also utilize the "Accept Invitation" function in eTendering system, where applicable. This will enable you to receive amendments or updates to the ITB. Should you require further clarifications, kindly communicate with the contact person/s identified in the attached Data Sheet as the focal point for queries on this ITB.

UNDP looks forward to receiving your Bid and thank you in advance for your interest in UNDP procurement opportunities.

Issued by

Approved by:

Name: Marie Kristel Aberilla
Title: Procurement Associate
Date: **June 4, 2019**

Name: Alka Aneja
Title: Procurement Specialist
Date: **June 4, 2019**

Section 2. Instruction to Bidders

| GENERAL PROVISIONS | |
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| 1. Introduction | <p>1.1 Bidders shall adhere to all the requirements of this ITB, including any amendments made in writing by UNDP. This ITB is conducted in accordance with the UNDP Programme and Operations Policies and Procedures (POPP) on Contracts and Procurement which can be accessed at https://popp.undp.org/SitePages/POPPBSUnit.aspx?TermID=254a9f96-b883-476a-8ef8-e81f93a2b38d</p> <p>1.2 Any Bid submitted will be regarded as an offer by the Bidder and does not constitute or imply the acceptance of the Bid by UNDP. UNDP is under no obligation to award a contract to any Bidder as a result of this ITB.</p> <p>1.3 UNDP reserves the right to cancel the procurement process at any stage without any liability of any kind for UNDP, upon notice to the bidders or publication of cancellation notice on UNDP website.</p> <p>1.4 As part of the bid, it is desired that the Bidder registers at the United Nations Global Marketplace (UNGM) website (www.ungm.org). The Bidder may still submit a bid even if not registered with the UNGM. However, if the Bidder is selected for contract award, the Bidder must register on the UNGM prior to contract signature.</p> |
| 2. Fraud & Corruption, Gifts and Hospitality | <p>2.1 UNDP strictly enforces a policy of zero tolerance on proscribed practices, including fraud, corruption, collusion, unethical or unprofessional practices, and obstruction of UNDP vendors and requires all bidders/vendors observe the highest standard of ethics during the procurement process and contract implementation. UNDP's Anti-Fraud Policy can be found at http://www.undp.org/content/undp/en/home/operations/accountability/audit/office_of_audit_andinvestigation.html#anti</p> <p>2.2 Bidders/vendors shall not offer gifts or hospitality of any kind to UNDP staff members including recreational trips to sporting or cultural events, theme parks or offers of holidays, transportation, or invitations to extravagant lunches or dinners.</p> <p>2.3 In pursuance of this policy, UNDP:</p> <p>(a) Shall reject a bid if it determines that the selected bidder has engaged in any corrupt or fraudulent practices in competing for the contract in question;</p> <p>(b) Shall declare a vendor ineligible, either indefinitely or for a stated period, to be awarded a contract if at any time it determines that the vendor has engaged in any corrupt or fraudulent practices in competing for, or in executing a UNDP contract.</p> <p>2.4 All Bidders must adhere to the UN Supplier Code of Conduct, which may be found at http://www.un.org/depts/ptd/pdf/conduct_english.pdf</p> |
| 3. Eligibility | <p>3.1 A vendor should not be suspended, debarred, or otherwise identified as ineligible by any UN Organization or the World Bank Group or any other international Organization. Vendors are therefore required to disclose to UNDP whether they are subject to any sanction or temporary suspension imposed by</p> |

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| | <p>these organizations.</p> <p>3.2 It is the Bidder's responsibility to ensure that its employees, joint venture members, sub-contractors, service providers, suppliers and/or their employees meet the eligibility requirements as established by UNDP.</p> |
| 4. Conflict of Interests | <p>4.1 Bidders must strictly avoid conflicts with other assignments or their own interests, and act without consideration for future work. Bidders found to have a conflict of interest shall be disqualified. Without limitation on the generality of the above, Bidders, and any of their affiliates, shall be considered to have a conflict of interest with one or more parties in this solicitation process, if they:</p> <ul style="list-style-type: none"> a) Are or have been associated in the past, with a firm or any of its affiliates which have been engaged by UNDP to provide services for the preparation of the design, specifications, Terms of Reference, cost analysis/estimation, and other documents to be used for the procurement of the goods and services in this selection process; b) Were involved in the preparation and/or design of the programme/project related to the goods and/or services requested under this ITB; or c) Are found to be in conflict for any other reason, as may be established by, or at the discretion of UNDP. <p>4.2 In the event of any uncertainty in the interpretation of a potential conflict of interest, Bidders must disclose to UNDP, and seek UNDP's confirmation on whether or not such conflict exists.</p> <p>4.3 Similarly, the Bidders must disclose in their Bid their knowledge of the following:</p> <ul style="list-style-type: none"> a) If the owners, part-owners, officers, directors, controlling shareholders, of the bidding entity or key personnel who are family members of UNDP staff involved in the procurement functions and/or the Government of the country or any Implementing Partner receiving goods and/or services under this ITB; and b) All other circumstances that could potentially lead to actual or perceived conflict of interest, collusion or unfair competition practices. <p>Failure to disclose such an information may result in the rejection of the Bid or Bids affected by the non-disclosure.</p> <p>4.4 The eligibility of Bidders that are wholly or partly owned by the Government shall be subject to UNDP's further evaluation and review of various factors such as being registered, operated and managed as an independent business entity, the extent of Government ownership/share, receipt of subsidies, mandate and access to information in relation to this ITB, among others. Conditions that may lead to undue advantage against other Bidders may result in the eventual rejection of the Bid.</p> |
| B. PREPARATION OF BIDS | |
| 5. General Considerations | <p>5.1 In preparing the Bid, the Bidder is expected to examine the ITB in detail. Material deficiencies in providing the information requested in the ITB may result in rejection of the Bid.</p> <p>5.2 The Bidder will not be permitted to take advantage of any errors or omissions in the ITB. Should such errors or omissions be discovered, the Bidder must notify the UNDP accordingly.</p> |

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| 6. Cost of Preparation of Bid | 6.1 The Bidder shall bear all costs related to the preparation and/or submission of the Bid, regardless of whether its Bid is selected or not. UNDP shall not be responsible or liable for those costs, regardless of the conduct or outcome of the procurement process. |
| 7. Language | 7.1 The Bid, as well as any and all related correspondence exchanged by the Bidder and UNDP, shall be written in the language (s) specified in the BDS. |
| 8. Documents Comprising the Bid | 8.1 The Bid shall comprise of the following documents and related forms which details are provided in the BDS: <ul style="list-style-type: none"> a) Documents Establishing the Eligibility and Qualifications of the Bidder; b) Technical Bid; c) Price Schedule; d) Bid Security, if required by BDS; e) Any attachments and/or appendices to the Bid. |
| 9. Documents Establishing the Eligibility and Qualifications of the Bidder | 9.1 The Bidder shall furnish documentary evidence of its status as an eligible and qualified vendor, using the Forms provided under Section 6 and providing documents required in those forms. In order to award a contract to a Bidder, its qualifications must be documented to UNDP's satisfaction. |
| 10. Technical Bid Format and Content | 10.1 The Bidder is required to submit a Technical Bid using the Standard Forms and templates provided in Section 6 of the ITB. 10.2 Samples of items, when required as per Section 5, shall be provided within the time specified and unless otherwise specified by the Purchaser, at no expense to the UNDP. If not destroyed by testing, samples will be returned at Bidder's request and expense, unless otherwise specified. 10.3 When applicable and required as per Section 5, the Bidder shall describe the necessary training programme available for the maintenance and operation of the equipment offered as well as the cost to the UNDP. Unless otherwise specified, such training as well as training materials shall be provided in the language of the Bid as specified in the BDS. 10.4 When applicable and required as per Section 5, the Bidder shall certify the availability of spare parts for a period of at least five (5) years from date of delivery, or as otherwise specified in this ITB. |
| 11. Price Schedule | 11.1 The Price Schedule shall be prepared using the Form provided in Section 6 of the ITB and taking into consideration the requirements in the ITB. 11.2 Any requirement described in the Technical Bid but not priced in the Price Schedule, shall be assumed to be included in the prices of other activities or items, as well as in the final total price. |
| 12. Bid Security | 12.1 A Bid Security, if required by BDS, shall be provided in the amount and form indicated in the BDS. The Bid Security shall be valid for a minimum of thirty (30) days after the final date of validity of the Bid. 12.2 The Bid Security shall be included along with the Bid. If Bid Security is required by the ITB but is not found in the Bid, the offer shall be rejected. |

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| | <p>12.3 If the Bid Security amount or its validity period is found to be less than what is required by UNDP, UNDP shall reject the Bid.</p> <p>12.4 In the event an electronic submission is allowed in the BDS, Bidders shall include a copy of the Bid Security in their bid and the original of the Bid Security must be sent via courier or hand delivery as per the instructions in BDS.</p> <p>12.5 The Bid Security may be forfeited by UNDP, and the Bid rejected, in the event of any, or combination, of the following conditions:</p> <ul style="list-style-type: none"> a) If the Bidder withdraws its offer during the period of the Bid Validity specified in the BDS, or; b) In the event the successful Bidder fails: <ul style="list-style-type: none"> i. to sign the Contract after UNDP has issued an award; or ii. to furnish the Performance Security, insurances, or other documents that UNDP may require as a condition precedent to the effectivity of the contract that may be awarded to the Bidder. |
| 13. Currencies | <p>13.1 All prices shall be quoted in the currency or currencies indicated in the BDS. Where Bids are quoted in different currencies, for the purposes of comparison of all Bids:</p> <ul style="list-style-type: none"> a) UNDP will convert the currency quoted in the Bid into the UNDP preferred currency, in accordance with the prevailing UN operational rate of exchange on the last day of submission of Bids; and b) In the event that UNDP selects a Bid for award that is quoted in a currency different from the preferred currency in the BDS, UNDP shall reserve the right to award the contract in the currency of UNDP's preference, using the conversion method specified above. |
| 14. Joint Venture, Consortium or Association | <p>14.1 If the Bidder is a group of legal entities that will form or have formed a Joint Venture (JV), Consortium or Association for the Bid, they shall confirm in their Bid that : (i) they have designated one party to act as a lead entity, duly vested with authority to legally bind the members of the JV, Consortium or Association jointly and severally, which shall be evidenced by a duly notarized Agreement among the legal entities, and submitted with the Bid; and (ii) if they are awarded the contract, the contract shall be entered into, by and between UNDP and the designated lead entity, who shall be acting for and on behalf of all the member entities comprising the joint venture.</p> <p>14.2 After the Deadline for Submission of Bid, the lead entity identified to represent the JV, Consortium or Association shall not be altered without the prior written consent of UNDP.</p> <p>14.3 The lead entity and the member entities of the JV, Consortium or Association shall abide by the provisions of Clause 9 herein in respect of submitting only one Bid.</p> <p>14.4 The description of the organization of the JV, Consortium or Association must clearly define the expected role of each of the entities in the joint venture in delivering the requirements of the ITB, both in the Bid and the JV, Consortium or Association Agreement. All entities that comprise the JV, Consortium or Association shall be subject to the eligibility and qualification assessment by UNDP.</p> <p>14.5 A JV, Consortium or Association in presenting its track record and experience</p> |

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| | <p>should clearly differentiate between:</p> <ul style="list-style-type: none"> a) Those that were undertaken together by the JV, Consortium or Association; and b) Those that were undertaken by the individual entities of the JV, Consortium or Association. <p>14.6 Previous contracts completed by individual experts working privately but who are permanently or were temporarily associated with any of the member firms cannot be claimed as the experience of the JV, Consortium or Association or those of its members, but should only be claimed by the individual experts themselves in their presentation of their individual credentials</p> <p>14.7 JV, Consortium or Associations are encouraged for high value, multi-sectoral requirements when the spectrum of expertise and resources required may not be available within one firm.</p> |
| 15. Only One Bid | <p>15.1 The Bidder (including the individual members of any Joint Venture) shall submit only one Bid, either in its own name or as part of a Joint Venture.</p> <p>15.2 Bids submitted by two (2) or more Bidders shall all be rejected if they are found to have any of the following:</p> <ul style="list-style-type: none"> a) they have at least one controlling partner, director or shareholder in common; or b) any one of them receive or have received any direct or indirect subsidy from the other/s; or c) they have the same legal representative for purposes of this ITB; or d) they have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about, or influence on the Bid of another Bidder regarding this ITB process; e) they are subcontractors to each other's Bid, or a subcontractor to one Bid also submits another Bid under its name as lead Bidder; or some key personnel proposed to be in the team of one Bidder participates in more than one Bid received for this ITB process. This condition relating to the personnel, does not apply to subcontractors being included in more than one Bid. |
| 16. Bid Validity Period | <p>16.1 Bids shall remain valid for the period specified in the BDS, commencing on the Deadline for Submission of Bids. A Bid valid for a shorter period may be rejected by UNDP and rendered non-responsive.</p> <p>16.2 During the Bid validity period, the Bidder shall maintain its original Bid without any change, including the availability of the Key Personnel, the proposed rates and the total price.</p> |
| 17. Extension of Bid Validity Period | <p>17.1 In exceptional circumstances, prior to the expiration of the Bid validity period, UNDP may request Bidders to extend the period of validity of their Bids. The request and the responses shall be made in writing, and shall be considered integral to the Bid.</p> <p>17.2 If the Bidder agrees to extend the validity of its Bid, it shall be done without any change to the original Bid.</p> <p>17.3 The Bidder has the right to refuse to extend the validity of its Bid, in which case, the Bid shall not be further evaluated.</p> |

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| 18. Clarification of Bid (from the Bidders) | <p>18.1 Bidders may request clarifications on any of the ITB documents no later than the date indicated in the BDS. Any request for clarification must be sent in writing in the manner indicated in the BDS. If inquiries are sent other than specified channel, even if they are sent to a UNDP staff member, UNDP shall have no obligation to respond or confirm that the query was officially received.</p> <p>18.2 UNDP will provide the responses to clarifications through the method specified in the BDS.</p> <p>18.3 UNDP shall endeavour to provide responses to clarifications in an expeditious manner, but any delay in such response shall not cause an obligation on the part of UNDP to extend the submission date of the Bids, unless UNDP deems that such an extension is justified and necessary.</p> |
| 19. Amendment of Bids | <p>19.1 At any time prior to the deadline of Bid submission, UNDP may for any reason, such as in response to a clarification requested by a Bidder, modify the ITB in the form of an amendment to the ITB. Amendments will be made available to all prospective bidders.</p> <p>19.2 If the amendment is substantial, UNDP may extend the Deadline for submission of Bid to give the Bidders reasonable time to incorporate the amendment into their Bids.</p> |
| 20. Alternative Bids | <p>20.1 Unless otherwise specified in the BDS, alternative Bids shall not be considered. If submission of alternative Bid is allowed by BDS, a Bidder may submit an alternative Bid, but only if it also submits a Bid conforming to the ITB requirements. Where the conditions for its acceptance are met, or justifications are clearly established, UNDP reserves the right to award a contract based on an alternative Bid.</p> <p>20.2 If multiple/alternative bids are being submitted, they must be clearly marked as "Main Bid" and "Alternative Bid"</p> |
| 21. Pre-Bid Conference | <p>21.1 When appropriate, a pre-bid conference will be conducted at the date, time and location specified in the BDS. All Bidders are encouraged to attend. Non-attendance, however, shall not result in disqualification of an interested Bidder. Minutes of the Bidder's conference will be disseminated on the procurement website and shared by email or on the e-Tendering platform as specified in the BDS. No verbal statement made during the conference shall modify the terms and conditions of the ITB, unless specifically incorporated in the Minutes of the Bidder's Conference or issued/posted as an amendment to ITB.</p> |

C. SUBMISSION AND OPENING OF BIDS

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| 22. Submission | <p>22.1 The Bidder shall submit a duly signed and complete Bid comprising the documents and forms in accordance with requirements in the BDS. The Price Schedule shall be submitted together with the Technical Bid. Bid can be delivered either personally, by courier, or by electronic method of transmission as specified in the BDS.</p> <p>22.2 The Bid shall be signed by the Bidder or person(s) duly authorized to commit the Bidder. The authorization shall be communicated through a document evidencing such authorization issued by the legal representative of the bidding entity, or a Power of Attorney, accompanying the Bid.</p> <p>22.3 Bidders must be aware that the mere act of submission of a Bid, in and of itself, implies that the Bidder fully accepts the UNDP General Contract Terms and Conditions.</p> |
| Hard copy (manual) submission | <p>22.4 Hard copy (manual) submission by courier or hand delivery allowed or specified in the BDS shall be governed as follows:</p> <p>a) The signed Bid shall be marked "Original", and its copies marked "Copy" as appropriate. The number of copies is indicated in the BDS. All copies shall be made from the signed original only. If there are discrepancies between the original and the copies, the original shall prevail.</p> <p>(b) The Technical Bid and Price Schedule must be sealed and submitted together in an envelope, which shall:</p> <ul style="list-style-type: none"> i. Bear the name of the Bidder; ii. Be addressed to UNDP as specified in the BDS; and iii. Bear a warning not to open before the time and date for Bid opening as specified in the BDS. <p>If the envelope with the Bid is not sealed and marked as required, UNDP shall assume no responsibility for the misplacement, loss, or premature opening of the Bid.</p> |
| Email and eTendering submissions | <p>22.5 Electronic submission through email or eTendering, if allowed as specified in the BDS, shall be governed as follows:</p> <p>a) Electronic files that form part of the Bid must be in accordance with the format and requirements indicated in BDS;</p> <p>b) Documents which are required to be in original form (e.g. Bid Security, etc.) must be sent via courier or hand delivered as per the instructions in BDS.</p> <p>22.6 Detailed instructions on how to submit, modify or cancel a bid in the eTendering system are provided in the eTendering system Bidder User Guide and Instructional videos available on this link: http://www.undp.org/content/undp/en/home/operations/procurement/business/procurement-notice/resources/</p> |
| 23. Deadline for Submission of Bids and Late Bids | <p>23.1 Complete Bids must be received by UNDP in the manner, and no later than the date and time, specified in the BDS. UNDP shall only recognise the actual date and time that the bid was received by UNDP</p> <p>23.2 UNDP shall not consider any Bid that is received after the deadline for the</p> |

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| | submission of Bids. |
| 24. Withdrawal, Substitution, and Modification of Bids | <p>24.1 A Bidder may withdraw, substitute or modify its Bid after it has been submitted at any time prior to the deadline for submission.</p> <p>24.2 Manual and Email submissions: A bidder may withdraw, substitute or modify its Bid by sending a written notice to UNDP, duly signed by an authorized representative, and shall include a copy of the authorization (or a Power of Attorney). The corresponding substitution or modification of the Bid, if any, must accompany the respective written notice. All notices must be submitted in the same manner as specified for submission of Bids, by clearly marking them as "WITHDRAWAL" "SUBSTITUTION," or "MODIFICATION"</p> <p>24.3 eTendering: A Bidder may withdraw, substitute or modify its Bid by Cancelling, Editing, and re-submitting the Bid directly in the system. It is the responsibility of the Bidder to properly follow the system instructions, duly edit and submit a substitution or modification of the Bid as needed. Detailed instructions on how to cancel or modify a Bid directly in the system are provided in the Bidder User Guide and Instructional videos.</p> <p>24.4 Bids requested to be withdrawn shall be returned unopened to the Bidders (only for manual submissions), except if the bid is withdrawn after the bid has been opened.</p> |
| 25. Bid Opening | <p>25.1 UNDP will open the Bid in the presence of an ad-hoc committee formed by UNDP of at least two (2) members.</p> <p>25.2 The Bidders' names, modifications, withdrawals, the condition of the envelope labels/seals, the number of folders/files and all other such other details as UNDP may consider appropriate, will be announced at the opening. No Bid shall be rejected at the opening stage, except for late submissions, in which case, the Bid shall be returned unopened to the Bidders.</p> <p>25.3 In the case of e-Tendering submission, bidders will receive an automatic notification once the Bid is opened.</p> |
| D. EVALUATION OF BIDS | |
| 26. Confidentiality | <p>26.1 Information relating to the examination, evaluation, and comparison of Bids, and the recommendation of contract award, shall not be disclosed to Bidders or any other persons not officially concerned with such process, even after publication of the contract award.</p> <p>26.2 Any effort by a Bidder or anyone on behalf of the Bidder to influence UNDP in the examination, evaluation and comparison of the Bids or contract award decisions may, at UNDP's decision, result in the rejection of its Bid and may subsequently be subject to the application of prevailing UNDP's vendor sanctions procedures.</p> |
| 27. Evaluation of Bids | <p>27.1 UNDP will conduct the evaluation solely on the basis of the Bids received.</p> <p>27.2 Evaluation of Bids shall be undertaken in the following steps:</p> <ul style="list-style-type: none"> a) Preliminary Examination including Eligibility b) Arithmetical check and ranking of bidders who passed preliminary examination by price. c) Qualification assessment (if pre-qualification was not done) |

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| | <ul style="list-style-type: none"> a) Evaluation of Technical Bids b) Evaluation of prices <p>Detailed evaluation will be focussed on the 3 - 5 lowest priced bids. Further higher priced bids shall be added for evaluation if necessary</p> |
| 28. Preliminary Examination | <p>28.1 UNDP shall examine the Bids to determine whether they are complete with respect to minimum documentary requirements, whether the documents have been properly signed, and whether the Bids are generally in order, among other indicators that may be used at this stage. UNDP reserves the right to reject any Bid at this stage.</p> |
| 29. Evaluation of Eligibility and Qualification | <p>29.1 Eligibility and Qualification of the Bidder will be evaluated against the Minimum Eligibility/Qualification requirements specified in the Section 4 (Evaluation Criteria).</p> <p>29.2 In general terms, vendors that meet the following criteria may be considered qualified:</p> <ul style="list-style-type: none"> a) They are not included in the UN Security Council 1267/1989 Committee's list of terrorists and terrorist financiers, and in UNDP's ineligible vendors' list; b) They have a good financial standing and have access to adequate financial resources to perform the contract and all existing commercial commitments, c) They have the necessary similar experience, technical expertise, production capacity, quality certifications, quality assurance procedures and other resources applicable to the supply of goods and/or services required; d) They are able to comply fully with the UNDP General Terms and Conditions of Contract; e) They do not have a consistent history of court/arbitral award decisions against the Bidder; and f) They have a record of timely and satisfactory performance with their clients. |
| 30. Evaluation of Technical Bid and prices | <p>30.1 The evaluation team shall review and evaluate the Technical Bids on the basis of their responsiveness to the Schedule of Requirements and Technical Specifications and other documentation provided, applying the procedure indicated in the BDS and other ITB documents. When necessary, and if stated in the BDS, UNDP may invite technically responsive bidders for a presentation related to their technical Bids. The conditions for the presentation shall be provided in the bid document where required.</p> |
| 31. Due diligence | <p>31.1 UNDP reserves the right to undertake a due diligence exercise, aimed at determining to its satisfaction, the validity of the information provided by the Bidder. Such exercise shall be fully documented and may include, but need not be limited to, all or any combination of the following:</p> <ul style="list-style-type: none"> a) Verification of accuracy, correctness and authenticity of information provided by the Bidder; b) Validation of extent of compliance to the ITB requirements and evaluation criteria based on what has so far been found by the evaluation team; c) Inquiry and reference checking with Government entities with jurisdiction on the Bidder, or with previous clients, or any other entity that may have done business with the Bidder; d) Inquiry and reference checking with previous clients on the performance on on-going or completed contracts, including physical inspections of previous |

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| | <p>works, as deemed necessary;</p> <p>e) Physical inspection of the Bidder's offices, branches or other places where business transpires, with or without notice to the Bidder;</p> <p>f) Other means that UNDP may deem appropriate, at any stage within the selection process, prior to awarding the contract.</p> |
| 32. Clarification of Bids | <p>32.1 To assist in the examination, evaluation and comparison of Bids, UNDP may, at its discretion, request any Bidder for a clarification of its Bid.</p> <p>32.2 UNDP's request for clarification and the response shall be in writing and no change in the prices or substance of the Bid shall be sought, offered, or permitted, except to provide clarification, and confirm the correction of any arithmetic errors discovered by UNDP in the evaluation of the Bids, in accordance with the ITB.</p> <p>32.3 Any unsolicited clarification submitted by a Bidder in respect to its Bid, which is not a response to a request by UNDP, shall not be considered during the review and evaluation of the Bids.</p> |
| 33. Responsiveness of Bid | <p>33.1 UNDP's determination of a Bid's responsiveness will be based on the contents of the bid itself. A substantially responsive Bid is one that conforms to all the terms, conditions, specifications and other requirements of the ITB without material deviation, reservation, or omission.</p> <p>33.2 If a bid is not substantially responsive, it shall be rejected by UNDP and may not subsequently be made responsive by the Bidder by correction of the material deviation, reservation, or omission.</p> |
| 34. Nonconformities, Reparable Errors and Omissions | <p>34.1 Provided that a Bid is substantially responsive, UNDP may waive any non-conformities or omissions in the Bid that, in the opinion of UNDP, do not constitute a material deviation.</p> <p>34.2 UNDP may request the Bidder to submit the necessary information or documentation, within a reasonable period, to rectify nonmaterial nonconformities or omissions in the Bid related to documentation requirements. Such omission 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.</p> <p>34.3 For the bids that have passed the preliminary examination, UNDP shall check and correct arithmetical errors as follows:</p> <p>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 UNDP 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;</p> <p>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</p> <p>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.</p> <p>34.4 If the Bidder does not accept the correction of errors made by UNDP, its Bid shall</p> |

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| | be rejected. |
| E. AWARD OF CONTRACT | |
| 35. Right to Accept, Reject, Any or All Bids | 35.1 UNDP reserves the right to accept or reject any bid, to render any or all of the bids as non-responsive, and to reject all Bids at any time prior to award of contract, without incurring any liability, or obligation to inform the affected Bidder(s) of the grounds for UNDP's action. UNDP shall not be obliged to award the contract to the lowest priced offer. |
| 36. Award Criteria | 36.1 Prior to expiration of the period of Bid validity, UNDP shall award the contract to the qualified and eligible Bidder that is found to be responsive to the requirements of the Schedule of Requirements and Technical Specification, and has offered the lowest price. |
| 37. Debriefing | 37.1 In the event that a Bidder is unsuccessful, the Bidder may request for a debriefing from UNDP. The purpose of the debriefing is to discuss the strengths and weaknesses of the Bidder's submission, in order to assist the Bidder in improving its future Bids for UNDP procurement opportunities. The content of other Bids and how they compare to the Bidder's submission shall not be discussed. |
| 38. Right to Vary Requirements at the Time of Award | 38.1 At the time of award of Contract, UNDP reserves the right to vary the quantity of goods and/or services, by up to a maximum twenty-five per cent (25%) of the total offer, without any change in the unit price or other terms and conditions. |
| 39. Contract Signature | 39.1 Within fifteen (15) days from the date of receipt of the Contract, the successful Bidder shall sign and date the Contract and return it to UNDP. Failure to do so may constitute sufficient grounds for the annulment of the award, and forfeiture of the Bid Security, if any, and on which event, UNDP may award the Contract to the Second highest rated or call for new Bids. |
| 40. Contract Type and General Terms and Conditions | 40.1 The types of Contract to be signed and the applicable UNDP Contract General Terms and Conditions, as specified in BDS, can be accessed at http://www.undp.org/content/undp/en/home/procurement/business/how-we-buy.html |
| 41. Performance Security | 41.1 A performance security, if required in the BDS, shall be provided in the amount specified in BDS and form available at https://popp.undp.org/_layouts/15/WopiFrame.aspx?sourcedoc=/UNDP_POPP_DOCUMENT_LIBRARY/Public/PSU_Solicitation_Performance%20Guarantee%20Form.docx&action=default within a maximum of fifteen (15) days of the contract signature by both parties. Where a performance security is required, the receipt of the performance security by UNDP shall be a condition for rendering the contract effective. |
| 42. Bank Guarantee for Advanced Payment | 42.1 Except when the interests of UNDP so require, it is UNDP's standard practice to not make advance payment(s) (i.e., payments without having received any outputs). If an advance payment is allowed as per the BDS, and exceeds 20% of the total contract price, or USD 30,000, whichever is less, the Bidder shall submit a Bank Guarantee in the full amount of the advance payment in the form available at |

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| | https://popp.undp.org/_layouts/15/WopiFrame.aspx?sourcedoc=/UNDP_POPP_DOCUMENT_LIBRARY/Public/PSU_Contract%20Management%20Payment%20and%20Taxes_Advanced%20Payment%20Guarantee%20Form.docx&action=default |
| 43. Liquidated Damages | <p>43.1 If specified in the BDS, UNDP shall apply Liquidated Damages for the damages and/or risks caused to UNDP resulting from the Contractor's delays or breach of its obligations as per Contract.</p> |
| 44. Payment Provisions | <p>44.1 Payment will be made only upon UNDP's acceptance of the goods and/or services performed. The terms of payment shall be within thirty (30) days, after receipt of invoice and certification of acceptance of goods and/or services issued by the proper authority in UNDP with direct supervision of the Contractor. Payment will be effected by bank transfer in the currency of the contract.</p> |
| 45. Vendor Protest | <p>45.1 UNDP's vendor protest procedure provides an opportunity for appeal to those persons or firms not awarded a contract through a competitive procurement process. In the event that a Bidder believes that it was not treated fairly, the following link provides further details regarding UNDP vendor protest procedures: http://www.undp.org/content/undp/en/home/procurement/business/protest-and-sanctions.html</p> |
| 46. Other Provisions | <p>46.1 In the event that the Bidder offers a lower price to the host Government (e.g. General Services Administration (GSA) of the federal government of the United States of America) for similar goods and/or services, UNDP shall be entitled to the same lower price. The UNDP General Terms and Conditions shall have precedence.</p> <p>46.2 UNDP is entitled to receive the same pricing offered by the same Contractor in contracts with the United Nations and/or its Agencies. The UNDP General Terms and Conditions shall have precedence.</p> <p>46.3 The United Nations has established restrictions on employment of (former) UN staff who have been involved in the procurement process as per bulletin ST/SGB/2006/15 http://www.un.org/en/ga/search/view_doc.asp?symbol=ST/SGB/2006/15&referer</p> |

Section 3. Bid Data Sheet

The following data for the goods and/or services to be procured shall complement, supplement, or amend the provisions in the Invitation to Bid In the case of a conflict between the Instructions to Bidders, the Bid Data Sheet, and other annexes or references attached to the Bid Data Sheet, the provisions in the Bid Data Sheet shall prevail.

| BDS No. | Ref. to Section.2 | Data | Specific Instructions / Requirements |
|---------|-------------------|---|---|
| 1 | 7 | Language of the Bid | English |
| 2 | | Submitting Bids for Parts or sub-parts of the Schedule of Requirements (partial bids) | Not Allowed |
| 3 | 20 | Alternative Bids | Shall not be considered |
| 4 | 21 | Pre-Bid conference | Will not be conducted |
| 5 | 16 | Bid Validity Period | 90 days |
| 6 | 13 | Bid Security | Not Required |
| 7 | 41 | Advanced Payment upon signing of contract | Not Allowed |
| 8 | 42 | Liquidated Damages | Will be imposed as follows: Percentage of the contract price per day of delay: 0.03% Max. number of days of delay: 30 days, after which UNDP may terminate the contract |
| 9 | 40 | Performance Security | Not Required |
| 10 | 12 | Currency of Bid | Philippine Peso for local bidders and USD for international bidders |
| 11 | 31 | Deadline for submitting requests for clarifications/ questions | 3 days before the submission deadline |

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| 12 | 31 | Contact Details for submitting clarifications/questions | Focal Person in UNDP: Marie Kristel Aberilla Address: 15 th Floor, North Tower E-mail address: marie.kristel.aberilla@undp.org |
| 13 | 18, 19 and 21 | Manner of Disseminating Supplemental Information to the ITB and responses/clarifications to queries | Posted directly to eTendering |
| 14 | 23 | Deadline for Submission | 5:00 pm of 18 June 2019, Manila Time/5:00 AM EDT. For eTendering submission - as indicated in eTendering system. Note that system time zone is in EST/EDT (New York) time zone. |
| 14 | 22 | Allowable Manner of Submitting Bids | <input checked="" type="checkbox"/> e-Tendering |
| 15 | 22 | Bid Submission Address | https://etendering.partneragencies.org <u>BU Code : PHL10</u> <u>Event ID number : 3844</u> |
| 16 | 22 | Electronic submission (email or eTendering) requirements | <ul style="list-style-type: none"> ▪ Format: PDF files only ▪ File names must be maximum 60 characters long and must not contain any letter or special character other than from Latin alphabet/keyboard. ▪ All files must be free of viruses and not corrupted. ▪ Max. File Size per transmission: <i>5MB</i> ▪ Mandatory subject of email: ITB-086-PHL-2019 |
| 17 | 25 | Date, time and venue for the opening of bid | Since it is through e-Tendering, bidders will receive an automatic notification once their Bids are opened. |
| 18 | 27, 36 | Evaluation Method for the Award of Contract | Lowest priced technically responsive, eligible and qualified bid. |
| 19 | | Expected date for commencement of Contract | <i>June 30, 2019</i> |
| 20 | | Maximum expected duration of contract | Six (6) months |
| 21 | 35 | UNDP will award the contract to: | One Proposer Only |
| 22 | 39 | Type of Contract | Purchase Order |

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| | | | http://www.undp.org/content/undp/en/home/procurement/business/how-we-buy.html |
| 23 | 39 | UNDP Contract Terms and Conditions that will apply | UNDP General Terms and Conditions for Contracts http://www.undp.org/content/undp/en/home/procurement/business/how-we-buy.html |
| 24 | | Other Information Related to the ITB | <p>The following Special Conditions of Contract shall supplement the UNDP General Conditions of Contracts under BDS No. 23.</p> <p>ACCEPTANCE OF PURCHASE ORDER: The resulting Purchase Order may only be accepted by the Supplier's signing and returning an acknowledgement copy within the time specified. Acceptance of the Purchase Order shall effect a contract between the Parties under which the rights and obligations of the Parties shall be governed solely by the terms and conditions of the Purchase Order, including these General Conditions. No additional or inconsistent provisions proposed by the Supplier shall bind UNDP unless agreed to in writing by a duly authorized official of UNDP.</p> <p>CERTIFICATE OF WARRANTY: A Certificate of Warranty Security will be required. The successful Bidder must provide a Warranty Certificate in the amount commensurate to the value of the one (1) year warranty and technical support services period, to be submitted after satisfactory completion and acceptance by the end user.</p> <p>The Certificate of Warranty shall be named and titled to the <u>Philippine Atmospheric Geophysical and Astronomical Services Administration (PAGASA)</u>.</p> <p>If the supplier fails to render the services required under the Warranty, after establishing that the defect is indeed caused by factor defect and not by mishandling or erroneous use of the equipment, PAGASA may make claims against the Certificate of Warranty to cover the value of the repair services required. In the event that appropriate claims shall have to be made by the PAGASA against the Certificate of Warranty, the value of the Certificate of Warranty shall also be reduced accordingly.</p> <p>Please refer to Form H of the ITB for the Certificate of Warranty template.</p> |

Section 4. Evaluation Criteria

Preliminary Examination Criteria

Bids will be examined to determine whether they are complete and submitted in accordance with ITB requirements as per below criteria on a Yes/No basis:

- Appropriate signatures
- Power of Attorney
- Minimum Bid documents provided
- Bid Validity
- Bid Security (if required) submitted as per ITB requirements with compliant validity period

Minimum Eligibility and Qualification Criteria

Eligibility and Qualification will be evaluated on a Pass/Fail basis.

If the Bid is submitted as a Joint Venture/Consortium/Association, each member should meet the minimum criteria, unless otherwise specified.

| Subject | Criteria | Document Submission requirement |
|----------------------------------|--|---------------------------------|
| ELIGIBILITY | | |
| Legal Status | Vendor is a legally registered entity. | Form B: Bidder Information Form |
| Eligibility | Vendor is not suspended, nor debarred, nor otherwise identified as ineligible by any UN Organization or the World Bank Group or any other international Organization in accordance with ITB clause 3. | Form A: Bid Submission Form |
| Conflict of Interest | No conflicts of interest in accordance with ITB clause 4. | Form A: Bid Submission Form |
| Bankruptcy | Has not declared bankruptcy, is not involved in bankruptcy or receivership proceedings, and there is no judgment or pending legal action against the vendor that could impair its operations in the foreseeable future. | Form A: Bid Submission Form |
| Certificates and Licenses | <ul style="list-style-type: none">▪ Duly authorized to act as Agent on behalf of the Manufacturer, or Power of Attorney, if bidder is not a manufacturer▪ Official appointment as local representative, if Bidder is submitting a Bid on behalf of an entity located outside the country▪ Patent Registration Certificates, if any of technologies submitted in the Bid is patented by the Bidder▪ Export/Import Licenses, if applicable▪ Local Government permit to locate and operate in the current location of office or factory. Must be current. | Form B: Bidder Information Form |

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| | <ul style="list-style-type: none"> ▪ A Written Proof / Statement of Satisfactory Performance issued by at least three (3) of the top clients of similar nature of supply. Contact details for references to be sought should be included ▪ Audited financial statements for the last three (3) years (Income Statement and Balance Sheet), including Auditor's Report. UNDP will check the financial accounts to compute the quick ratio (QR). Quick ratio tests the company's financial strength and liquidity by calculating a company's financial strength and liquidity by calculating a company's liquid assets in proportion to its liabilities. If Quick ratio is less than 1, UNDP shall verify financial capacity of the bidder and has the authority to seek references from concerned parties and banks on the bidder's financial standing. UNDP has the right to reject any bid if submitted by a contractor if investigation leads to a result that it is not financially capable and/or has serious financial problems. ▪ Total monetary value of sales for each of the last three (3) years. Average should be no less than PHP 2,000,000 or USD 36,934. ▪ Tax Registration/Payment Certificate issued by the Internal Revenue Authority evidencing that the bidder is updated with its tax payment obligations, or Certificate of Tax Exemption, if any such privilege is enjoyed by the bidder | |
| QUALIFICATION | | |
| History of Non-Performing Contracts¹ | Non-performance of a contract did not occur as a result of contractor default for the last 3 years. | Form D: Qualification Form |
| Litigation History | No consistent history of court/arbitral award decisions against the Bidder for the last 3 years. | Form D: Qualification Form |
| Previous Experience | Minimum 3 years of relevant experience. | Form D: Qualification Form |
| | <p>Minimum 3 contracts of similar value, nature and complexity implemented over the last 5 years.</p> <p>Contracts must be fully relevant to the complexity and intended scope of the present ITB. Each Contract shall clearly indicate the type and quantities of items and technical specifications, contract amount and date. Copies of relevant pages of the contract must be provided.</p> | Form D: Qualification Form |

¹ Non-performance, as decided by UNDP, shall include all contracts where (a) non-performance was not challenged by the contractor, including through referral to the dispute resolution mechanism under the respective contract, and (b) contracts that were so challenged but fully settled against the contractor. Non-performance shall not include contracts where Employers decision was overruled by the dispute resolution mechanism. Non-performance must be based on all information on fully settled disputes or litigation, i.e. dispute or litigation that has been resolved in accordance with the dispute resolution mechanism under the respective contract and where all appeal instances available to the Bidder have been exhausted.

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| | <i>(For JV/Consortium/Association, all Parties cumulatively should meet requirement).</i> | |
| Financial Standing | <p>Bidder must demonstrate the current soundness of its financial standing and indicate its prospective long-term profitability.</p> <p><i>(For JV/Consortium/Association, all Parties cumulatively should meet requirement).</i></p> | Form D: Qualification Form |
| Technical Evaluation | The technical bids shall be evaluated on a pass/fail basis for compliance or non-compliance with the technical specifications identified in the bid document. | Form E: Technical Bid Form |
| Financial Evaluation | <p>Detailed analysis of the price schedule based on requirements listed in Section 5 and quoted for by the bidders in Form F.</p> <p>Price comparison shall be based on the landed price, including transportation, insurance and the total cost of ownership (including spare parts, consumption, installation, commissioning, training, special packaging, etc., where applicable)</p> <p>Comparison with budget/internal estimates.</p> | Form F: Price Schedule Form |
| Additional Technical Evaluation Criteria | <p>The following additional documents shall be included in the bid submission:</p> <p>Technical description of items: Full details including technical & performance characteristics, exact model and country of origin of all the items should be included in the "Description of items offered and Bidders' statement on deviations" column in Section 5a's table.</p> <p>Bidder's Statement Regarding Deviations/Non-Compliance: Any deviation from the provisions of the specification shall be disclosed in the "Bidder's Statement Regarding Deviations/Non-Compliance" column in Section 5a's table. In case that the bidder's offer contain absolutely no deviations from the specified requirements, for purposes of clarity, the bidder must clearly indicate 'no deviations'.</p> <p>Organizational Set-up required / Partnership with Local Service Provider: The main contractor should be one that possesses the following qualifications :</p> <ol style="list-style-type: none"> 1. an international / national supplier with at least 3 years of network and experience in similar projects internationally / nationally; 2. with proven financial capacity to undertake high value orders and sufficient resources that allows it to progress on the project milestones without need to rely on payments that will be made by UNDP; 3. if the bid is being submitted by an international firm, there should be evidence of established local partnership with qualified companies for the provision of readily available service and parts according to the specific qualification requirements. | |

Section 5a: Schedule of Requirements and Technical Specifications/Bill of Quantities

Table 1. Technical Specifications (MINIMUM SPECIFICATIONS)

| # | Description and minimum/mandatory specifications | Technical Specifications (MINIMUM SPECIFICATIONS) | QTY No. of Units | Delivery Date |
|---|--|--|------------------|------------------------------|
| 1 | Controller/Data Logger | Power Supply: 50Watts to 200watts solar panel and wind turbine with greater than or equal to 60AH deep cycle battery requiring 12V charge controller 2 pulse input port 2 x DI ports to monitor door closing/opening 1 x series TTL port more than 10 spare GPIO ports with built in 10/100T-TX Lan with built in Wi-fi connectivity 1.2Ghz Processor Speed minimum Storage of 8GB SD Storage 8 x Analog to Digital inputs (10-bits or 12-bits available upon request) for system voltage monitoring 4-20mA sensors with built in GSM Modem that can accommodate 10 or more mobile recipients with built in GPS modem RS-232 port for AWS RS-232 port for UHF/VHF Radio Serial Data Communication | 21 | 6 months from issuance of PO |
| 2 | Radio | Frequency range: VHF: 136-174Mhz UHF: 300-370Mhz, 400-440Mhz, 430-470MHz, 450-490Mhz Channel Spacing: 12.5khz/24KHz Channel Capacity: 16 Power Supply: 9.5V-16V DC Operation Voltage: 12V DC (Nominal) Temperature Range: - 30°C ~ + 65°C(Operating) <i>Transmitter:</i> Output Power: 1~25W(Programmable) 3Modulation Type: F3D/F3E current: 5W RF Power, 12V, 1.5A 1W RF Power, 12V, 1A Standby (Muted) Current: 65mA Frequency Deviation: <5KHz (25KHz) <2.5KHz(12.5KHz) Audio Response: 300Hz~3KHz +1/-3dB (25KHz) <i>Receiver:</i> Adj. Channel Power: | 21 | 6 months from issuance of PO |

| # | Description and minimum/mandatory specifications | Technical Specifications (MINIMUM SPECIFICATIONS) | QTY No. of Units | Delivery Date |
|---|--|---|------------------|------------------------------|
| | | <p> $\leq 70\text{dBc}(25\text{KHz})$ $\leq 65\text{dBc}(12.5\text{KHz})$ TX SNR: $> 45\text{dB}(25\text{KHz})$ $> 40\text{dB}(12.5\text{KHz})$ RX Sensitivity (12 dB Sinad): $\leq 119\text{dBm}$ Extreme: $\leq 115\text{dBm}$ Intermodulation: $> 65\text{dB}$ Audio Output Power: $0.5\text{W} @ 8\Omega$ RX Audio Distortion: $< 5\%$ Image Rejection: $> 70\text{dB}$ Spurious Rejection: $> 70\text{dB}$ </p> <p> <i>With Data Modem:</i> Serial Interface: TTL/RS-232/RS-485(8N1) Supply Voltage: DC +12.5V Data Transmission Mode: Transparent </p> <p> Galvanized monopole antenna mast with steps, guy wires, turnbuckles, brackets, lightning protection. The mast and guy wires rest on concrete bases. </p> | | |
| 3 | Receiver Antenna | <p> Receiving frequency band: L1 GPS Built in a 20dB low noise amplifier and low loss filter, perfect support passive antenna. Antenna side to build high-quality ESD protection [TVS tube, to ensure that the ESD to achieve 8KV above [air discharge] Receiving frequency band: E1B/C1 Galileo Default support for wide area differential GPS enhancement system S137, [S129] Wan enhanced satellite Receiving channel: 56CH Positioning performance: $< 2.5\text{m}[\text{Autonomous}] [50\%]$ $< 2.0\text{m}[\text{SBAS}]$ Rate: $< 0.1\text{m/s}$; direction: $< 0.5\text{Degrees}$ Timing accuracy: 30ns Reference coordinate system: WGS-84 Maximum altitude: 50000 M Max speed: 500m/s Acceleration: $< 4\text{G}$ </p> <p> <i>Interface electrical properties:</i> Wide voltage range: the main power supply is +3.3V~+5.5V, self-owned RTC power supply Tracking sensitivity: -161dBm Capture sensitivity: -147dBm Cold start time: 30s [average </p> | 21 | 6 months from issuance of PO |

| # | Description and minimum/mandatory specifications | Technical Specifications (MINIMUM SPECIFICATIONS) | QTY No. of Units | Delivery Date |
|---|--|---|------------------|---------------|
| | | <p>Warm start time: 30s [average] Hot start time: 1s [average] The auxiliary ephemeris data of AGPS [network]: 3S Operating temperature: -40 C to C +85 C</p> <p>Package size:124x96.6mm Built in 25x25x4mm passive ceramic antenna Other parameters: Standard clock pulse: 0.25Hz~10MHz Location update rate: 1Hz Usb port interface [default] Data rate: 9600bps</p> <p><i>Computer Interfacing:</i> USB communication protocol support operating system: VistaXP, CE Windows10 Support: XP, win7, win8, win10 (support for all series windows system drive) Windows USB drivers Download U-center8.25 USB GPS test software Windows Download</p> | | |
| 4 | IP Radio | <p>Radio Frequency range: 4.940 - 4.990 GHz Channel Size: 5, 10, 20 MHz Modulation Schemes: OFDM (256-QAM, 64-QAM, 16-QAM, QPSK, BPSK) Data rates @ 20 MHz: 173, 144, 130, 116, 87, 58, 43, 29, 14 Mbps</p> <p>Antenna: Integrated directional dual-pol 23 dBi panel or 2 N-type connectors</p> <p>Wired First Interface: 10/100/1000 Base-T with PoE IN (RJ45) Second Interface: 10/100/1000 Base-T with PoE OUT (RJ45)</p> <p>Power Power input method, voltage: PoE 802.3at, isolated 42 - 57 VDC Power consumption (max): 8.6W Power output method, voltage: PoE 802.3af, 48 VDC, 12.95W maximum w/ PoE inserter and AC/DC adapter</p> <p>Operating temperature: -40°C to +65°C Humidity: 0 to 90%</p> <p>Internal antenna Frequency range: 4.9 – 5.9 GHz</p> | 6 (pairs) | |

| # | Description and minimum/mandatory specifications | Technical Specifications (MINIMUM SPECIFICATIONS) | QTY No. of Units | Delivery Date |
|---|--|--|------------------|------------------------------|
| | | Gain: 23 dBi Polarization: Dual linear Cross-pol Isolation: 27 dBi VSWR: 1.5:1 Azimuth beamwidth (Hpol): 6 deg Azimuth beamwidth (Vpol): 7 deg Elevation beamwidth: 9 deg | | |
| 5 | Solar Charge Controller | Rated Voltage: 12V/24V Wind Turbine power: 300Watts Solar Panel Power: 200Watts Charging mode: MPPT charging for wind turbine PWM charging for Solar Panel Display: LCD (remark Voltage, charge current, battery volumetric) Battery Type: AGM, GEL, Lead-acid | 15 | 6 months from issuance of PO |
| 6 | Solar Panel | Maximum Power (pmax): 200Watts Maximum Power Voltage: 36V Maximum Power Current: 5.56A Open Circuit Voltage: 45V Short Circuit Current: 6A Power Tolerance: +5% Module Efficiency STC: 15.30% Operating Temperature range: -40 C to 85 C Maximum System Voltage: 1000V Series Fuse Rating: 15A Nominal Operating Cell Temperature: 45 ±2 °C Cell Type: Monocrystalline 156 x 156mm Front Glass: 3.2mm, High Transmission, Low Iron, Tempered glass Frame Type: Anodized Aluminum Alloy Junction Box Protection class: IP67 Rated | 15 | 6 months from issuance of PO |
| 7 | Wind Turbine | Generator power: 200Watts Wheel Diameter: 0.47m Turbine height: 0.93 m Blades Material: Casting Aluminum Alloy Rated wind speed: 11m/s Startup wind turbine: 1.5m/s Survival turbine: 45m/s Output Voltage: 12v/24v Generator type: Maglev Generator Control System: electromagnet Speed regulation: automatically adjust windward direction Working temperature: from -40 °C to 80°C | 15 | 6 months from issuance of PO |
| 8 | Water Level Sensor (Tidal Gauge Sensor) | Pressure Range: 0-10m, 0-20m, of 0-30m or 0-500M Overload: 150% F.S. | 6 | 6 months from |

| # | Description and minimum/mandatory specifications | Technical Specifications (MINIMUM SPECIFICATIONS) | QTY No. of Units | Delivery Date |
|----|---|---|------------------|--|
| | | Burst Pressure:300% F.S. Accuracy: $\leq \pm 0.5\%$ F.S. Temperature Compensation: $-10^{\circ}\text{C} \sim 65^{\circ}\text{C}$ Medium compatible: Compatible with 316L Stainless Steel Electronic connection: Fixed cable and water proof IP68 Response time: ≤ 10 ms (standard) Pressure Type: Gauge pressure Certificate: intrinsic safety or ExdIICT6 and CE Certificate approving EMC Standard: electromagnetic radiation: EN50081-1/-2 electromagnetic susceptibility: EN50082-2 Lighting Protection: Air conduction more than 8000 V external sensor more than 4000 V protection | | issuance of PO |
| 9 | Digital Humidity Pressure Temperature Sensor | Supply Voltage: 12VDC Operating Range Temperature: -40 to $+85$ deg. C. Relative Humidity: 0 to 100% Barometric Pressure: 300 to 1100 hPa Key parameters for humidity sensor Response Time: 1s Accuracy Tolerance: $\pm 3\%$ relative humidity Hysteresis: $\pm 1\%$ relative humidity Key parameters for pressure sensor RMS Noise: 0.2Pa, equiv. to 1.7cm Offset temperature coefficient: ± 1.5 Pa/K, equiv. to ± 12.6 cm at 1 deg. C temperature change | 3 | 6 months from issuance of PO |
| 10 | Wind Direction Sensor | Features: In line with the WMO World Meteorological Organization specifications (CIMO Guide) High sensitivity: start wind speed $\leq 0.3\text{m/s}$ 0-360 degrees show no dead ends Parameters: Range: 0-360 ° Accuracy: $\pm 1\%$ ° Resolution: of 1 ° Start wind speed: $\leq 0.3\text{m/s}$ Working environment: temperature $-50^{\circ}\text{C} \sim 80^{\circ}\text{C}$, humidity $\leq 100\%$ RH Power supply: Standard: DC5V Other: DC12V, DC24V Output signal: Standard: 0-5V voltage signal | 3 | 6 months from issuance of PO 6 months from issuance of PO |

| # | Description and minimum/mandatory specifications | Technical Specifications (MINIMUM SPECIFICATIONS) | QTY No. of Units | Delivery Date |
|----|--|--|------------------|------------------------------|
| 11 | Wind Speed Sensor | <p>Features:</p> <p>In line with the WMO World Meteorological Organization specifications (CIMO Guide)</p> <p>High sensitivity: start wind speed $\leq 0.3\text{m/s}$</p> <p>Measuring range: measuring range 0-70m/s, 0-45m/s</p> <p>High accuracy: Accuracy is $\pm (0.3 \pm 0.03V) \text{ m/s}$ (V: wind speed)</p> <p>Parameters:</p> <p>Measuring range: 0-70 m/s</p> <p>Measurement accuracy: $\pm (0.3 \pm 0.03 V) \text{ m/s}$ (V: wind speed)</p> <p>Starting wind speed: $\geq 0.3 \text{ m/s}$</p> <p>Input voltage: 5V, 12V, 24V power supply range</p> <p>Output signal: Standard: pulse signal output, Other: 0-5V, 4-20mA, RS485 and other signal output</p> <p>Working environment: Temperature $-20^\circ\text{C} \sim 60^\circ\text{C}$; humidity $\leq 100\% \text{ RH}$</p> | 3 | 6 months from issuance of PO |
| 12 | Solar Radiation Sensor | <p>Sensitivity: $7 \sim 14 \mu\text{V/W}\cdot\text{m}^2$</p> <p>Spectral range: $0.3 \sim 3 \mu\text{m}$</p> <p>Measuring range: $0 \sim 2000\text{W/m}^2$</p> <p>Power Supply mode: 5VDC/12VDC/24VDC</p> <p>Output type:</p> <p>Pulse: pulse signal</p> <p>Current: $4 \sim 20\text{mA}$</p> <p>RS232</p> <p>RS485</p> <p>Line length: 2.5m</p> <p>Response time: $\leq 35 \text{ sec}$ (99%)</p> <p>Internal resistance: about 350Ω</p> <p>Cosine response: $\leq 7\%$ (solar height angle of 10°)</p> <p>Azimuth response error: $\leq 5\%$ (solar altitude angle of 10°)</p> <p>Temperature characteristics: $\pm 2\%$ ($-10^\circ\text{C} \sim 40^\circ\text{C}$)</p> <p>Working environment temperature: $-40^\circ\text{C} \sim 50^\circ\text{C}$</p> <p>Non-linearity: $\leq 2\%$</p> | 3 | 6 months from issuance of PO |
| 13 | Horn Siren Amplifier | <p>Working Voltage: 12VDC / 24VDC</p> <p>Output Power: 200Watts</p> <p>Waterproof: IP65</p> <p>Ambient Temperature: $-40^\circ\text{C} \sim 65^\circ\text{C}$</p> <p>Sound Pressure: 120-130DB</p> <p>With 10 feet of cable to speaker and 8.5 feet cable to power</p> | 11 | 6 months from issuance of PO |
| 14 | Horn Siren | <p>Dimensions: 8.46" L x 4.65" H x 7.443"</p> <p>Impedance: $4\Omega / 6\Omega / 8\Omega / 11\Omega$</p> <p>Power: 200Watts</p> <p>Frequency range: 300-4600Hz</p> <p>Distortion factor: $\leq 5\%$</p> <p>Sound Pressure: 120-130dB</p> | 11 | 6 months from issuance of PO |

| # | Description and minimum/mandatory specifications | Technical Specifications (MINIMUM SPECIFICATIONS) | QTY No. of Units | Delivery Date |
|----|--|---|------------------|------------------------------|
| 15 | Staff Gauges | <p>Reflectorized stainless steel water level gauge installed at any structure (i.e. pier of the bridge, retaining) of the identified stations.</p> <p>Dimensions: 1-foot wide (length will be based on the actual condition of the station location)</p> <p>Material: powder coated aluminum</p> <p>Colors: white background with black markings</p> | 11 | 6 months from issuance of PO |
| 16 | Dashboard Screen | <p>LED TV</p> <p>43inches</p> <p>Resolution: 1920x1080</p> | 8 | 6 months from issuance of PO |
| 17 | Server Database | <p>Workstation i7 Windows PC with UPS, 1-5W UHF radio on a commercial power supply with backup and emergency revert, Omni fiberglass antenna with low-loss cable and connectors, lightning and electrical surge protection.</p> <p>Localized warning broadcast capable within 1km radius.</p> <p>Master and slave database servers to process and store hierarchical hydrological data (PAGASA format).</p> <ul style="list-style-type: none"> Slave (backup) database server to act as standby server Bespoke interactive web-based map data display. <p>Can perform basic hydrological and mathematical function and to receive sensor readings via radio links</p> | 4 | 6 months from issuance of PO |
| 18 | Equipment Housing | Powder coated NEMA-compliant box | 21 | 6 months from issuance of PO |
| 19 | Tower mast | Galvanized tower mast (for the equipment listed in Table 2) Length based on actual site condition | 21 | 6 months from issuance of PO |

Table 2. DELIVERY LOCATIONS PER TYPE OF EQUIPMENT

| No. | Delivery Place | Latitude | Longitude | Items Required | QTY | Features and brief description |
|-----|--|----------|-----------|------------------------------|-----|---|
| 1 | Brgy. Mahagnao Elem School, Burauen, Leyte | 10.86545 | 124.8525 | Automated Rain Gauge Station | 1 | <p>The Automated Rain Gauge Station shall be composed of the following and consistent with the technical specifications indicated in Table 1:</p> <ol style="list-style-type: none"> 1. Controller/datalogger 2. Radio 3. Receiver antenna 4. Solar charge controller 5. Solar panel |
| | Anibong Elem School, Julita, Leyte | 11.01528 | 124.9817 | | 1 | |
| | Brgy. Mag-Aso, La Paz, Leyte | 10.87944 | 124.9211 | | 1 | |

| No. | Delivery Place | Latitude | Longitude | Items Required | QTY | Features and brief description |
|-----|--------------------------------------|----------|-----------|---|-----|---|
| | | | | | | 6. Wind turbine 7. Equipment housing 8. Tower mast While the stainless-steel tipping bucket rain gauge is not part of the station as this is currently available, this will still be installed as component of the station. Galvanized rain gauge tower mast on concrete base, equipment mounting brackets, and electrical accessories. |
| 2 | Daguitan - US bridge, Burauen, Leyte | 10.97125 | 124.8995 | Automated Water Level Station on Bridge | 1 | The Automated Water Level Station shall be composed of the following and consistent with the technical specifications indicated in Table 1: 1. Controller/datalogger 2. Radio 3. Receiver antenna 4. Solar charge controller 5. Solar panel 6. Wind turbine 7. Water level sensor 8. Equipment housing 9. Tower mast Galvanized water level tower masts for solar panel and equipment box clamped on bridge railings, equipment mounting brackets, conduits and electrical accessories. |
| | Marabong Bridge, Burauen, Leyte | 10.96111 | 124.9017 | | 1 | |
| | Hibuga Bridge US 1, Mayorga, Leyte | 10.89298 | 124.9737 | | 1 | |
| | Hibuga Bridge US 2, La Paz, Leyte | 10.92556 | 124.9281 | | 1 | |
| 3 | Brgy. Matin-Ao, Burauen, Leyte | 10.97 | 124.8072 | Automatic Weather Stations | 1 | The Automatic Weather Station shall be composed of the following and consistent with the technical specifications indicated in Table 1: 1. Controller/datalogger 2. Radio 3. Receiver antenna 4. Solar charge controller 5. Solar panel 6. Wind turbine 7. Digital humidity pressure temperature sensor 8. Wind direction sensor 9. Wind speed sensor 10. Solar radiation sensor 11. Equipment housing 12. Tower mast While the stainless-steel tipping bucket rain gauge is not part of the station as this is currently available, this will still be installed as component of the station. Galvanized water level tower masts for solar panel and equipment box clamped on bridge |

| No. | Delivery Place | Latitude | Longitude | Items Required | QTY | Features and brief description |
|-----|--------------------------------------|----------|-----------|--|-----|--|
| | | | | | | railings, equipment mounting brackets, conduits and electrical accessories. |
| 4 | Sabang Beach, Dulag, Leyte | 10.93022 | 125.0333 | Automatic Weather Stations and Storm Surge Station | 1 | <p>The Automatic Weather Stations and Storm Surge Station shall be composed of the following and consistent with the technical specifications indicated in Table 1:</p> <ol style="list-style-type: none"> 1. Controller/datalogger 2. Radio 3. Receiver antenna 4. Solar charge controller 5. Solar panel 6. Wind turbine 7. Digital humidity pressure temperature sensor 8. Wind direction sensor 9. Wind speed sensor 10. Solar radiation sensor 11. Water level sensor 12. Equipment housing 13. Tower mast <p>While the stainless-steel tipping bucket rain gauge is not part of the station as this is currently available, this will still be installed as component of the station.</p> <p>Galvanized water level tower masts for solar panel and equipment box clamped on bridge railings, equipment mounting brackets, conduits and electrical accessories.</p> |
| 5 | Balocawe Bridge US, MacArthur, Leyte | 10.81427 | 124.9361 | Automatic Weather Station and Water Level Station | 1 | <p>The Automatic Weather Stations and Water Level Station shall be composed of the following and consistent with the technical specifications indicated in Table 1:</p> <ol style="list-style-type: none"> 1. Controller/datalogger 2. Radio 3. Receiver antenna 4. Solar charge controller 5. Solar panel 6. Wind turbine 7. Digital humidity pressure temperature sensor 8. Wind direction sensor 9. Wind speed sensor 10. Solar radiation sensor 11. Water level sensor 12. Equipment housing 13. Tower mast <p>While the stainless-steel tipping bucket rain gauge is not part of the station as this is currently available, this will still be installed as component of the station.</p> |

| No. | Delivery Place | Latitude | Longitude | Items Required | QTY | Features and brief description |
|-----|--------------------------------|----------|-----------|--|-----|---|
| | | | | | | Galvanized water level mast for antenna, GPS and AWS equipment clamped on shelter wall, equipment mounting brackets, conduits and electrical accessories. |
| 6 | Daguitan Bridge, Dulag, Leyte | 10.9359 | 125.022 | Warning Post Stations | 1 | <p>The outdoor Warning Post Station shall be composed of the following and consistent with the technical specifications indicated in Table 1:</p> <ol style="list-style-type: none"> 1. Controller/datalogger 2. Radio 3. Receiver antenna 4. Solar charge controller 5. Solar panel 6. Wind turbine 7. Horn siren amplifier 8. Horn siren 9. Equipment housing 10. Tower mast <p>Galvanized tower mast for antenna, GPS, warning light and warning siren clamped on shelter wall equipment mounting brackets, conduits and electrical accessories.</p> |
| | Brgy. Gen. Roxas, Dulag, Leyte | 10.9762 | 124.99 | | 1 | |
| | Labiranan Bridge, Dulag, Leyte | 10.99056 | 125.0386 | | 1 | |
| | Brgy. Liberty, Mayorga, Leyte | 10.8768 | 124.999 | | 1 | |
| | Bocog Bridge, MacArthur, Leyte | 10.84278 | 124.9961 | | 1 | |
| 7 | Dulag MDRRMO | 10.95375 | 125.0336 | LGU Access Node (Relay and Warning Stations) | 1 | <p>The Access Node shall be composed of the following and consistent with the technical specifications indicated in Table 1:</p> <ol style="list-style-type: none"> 1. Controller/datalogger 2. Radio 3. Receiver antenna 4. IP Radio 5. Horn siren amplifier 6. Horn siren 7. Dashboard screen 8. Equipment housing 9. Tower mast <p>Galvanized monopole antenna mast with steps, guy wires, turnbuckles, brackets, lightning protection. The mast and guy wires rest on concrete bases.</p> |
| | La Paz MDRRMO | 10.89093 | 124.9581 | | 1 | |
| | MacArthur MDRRMO | 10.83451 | 124.9976 | | 1 | |
| 8 | Julita MDRRMO | 10.97294 | 124.9622 | LGU Access Node (Relay and Warning Stations) with Rain Gauge | 1 | <p>The Access Node shall be composed of the following and consistent with the technical specifications indicated in Table 1:</p> <ol style="list-style-type: none"> 1. Controller/datalogger 2. Radio 3. Receiver antenna 4. IP Radio 5. Horn siren amplifier 6. Horn siren 7. Dashboard screen 8. Equipment housing 9. Tower mast |

| No. | Delivery Place | Latitude | Longitude | Items Required | QTY | Features and brief description |
|-----|--------------------------------------|-----------|------------|---|-----|---|
| | | | | | | While the stainless-steel tipping bucket rain gauge is not part of the station as this is currently available, this will still be installed as component of the station. Galvanized monopole antenna mast with steps, guy wires, turnbuckles, brackets, lightning protection. The mast and guy wires rest on concrete bases. |
| 9 | Burauen MDRRMO | 10.97583 | 124.8908 | Multi-Hazard Early Warning System Center (MHEWSC) | 1 | The MHEWSC shall be composed of the following and consistent with the technical specifications indicated in Table 1: <ol style="list-style-type: none"> 1. Controller/datalogger 2. Radio 3. Receiver antenna 4. IP Radio 5. Horn siren amplifier 6. Horn siren 7. Dashboard screen 8. Server database 9. Equipment housing 10. Tower mast Galvanized monopole antenna mast with steps, guy wires, and turnbuckles, brackets, and lightning protection |
| | Mayorga MDRRMO | 10.90328 | 125.0056 | | 1 | |
| 10 | Hibuga Bridge US 2, La Paz, Leyte | 10.92556 | 124.9281 | Staff Gauges | 1 | The Staff Gauges shall have technical specifications indicated in Table 1. |
| | Daguitan - US bridge, Burauen, Leyte | 10.97125 | 124.8995 | | 1 | |
| | Marabong Bridge Burauen, Leyte | 10.96111 | 124.9017 | | 1 | |
| | Hibuga Bridge US 1, Mayorga, Leyte | 10.89298 | 124.9737 | | 1 | |
| | Balocawe Bridge US, MacArthur, Leyte | 10.81427 | 124.9361 | | 1 | |
| | Daguitan Bridge, Dulag, Leyte | 10.9373 | 125.0227 | | 1 | |
| | Calbasag Bridge, Dulag, Leyte | 10.96389 | 125.0325 | | 1 | |
| | Balocawe Bridge, MacArthur, Leyte | 10.82083 | 124.9958 | | 1 | |
| | Labiranan Bridge, Dulag, Leyte | 10.99056 | 125.0386 | | 1 | |
| | Hibuga Bridge, Mayorga, Leyte | 10.88207 | 124.9987 | | 1 | |
| | Bocog Bridge, MacArthur, Leyte | 10.84278 | 124.9961 | | 1 | |
| | | | | | | |
| 11 | PDRRMO Leyte, Candahug, Palo, Leyte | 11.177091 | 125.002715 | MHEWS Web-interface | 1 | The MHEWS Web-interface shall be composed of the following and consistent with the technical specifications indicated in Table 1: |

| No. | Delivery Place | Latitude | Longitude | Items Required | QTY | Features and brief description |
|-----|----------------|----------|-----------|----------------|-----|--|
| | | | | | | 1. Dashboard screen 2. Server database The two offices will have copy of the MHEWS data through the web-interface. |

Section 5b: Other Related Requirements

Further to the Schedule of Requirements in the preceding Table, Bidders are requested to take note of the following additional requirements, conditions, and related services pertaining to the fulfillment of the requirements: *[check the condition that applies to this ITB, delete the entire row if condition is not applicable to the goods being procured]*

| | |
|---|---|
| Delivery Term [INCOTERMS 2010] <i>(Pls. link this to price schedule)</i> | DAP |
| Exact Address of Delivery/Installation Location | Please see Table 2 for delivery locations. |
| Mode of Transport Preferred | Air |
| UNDP Preferred Freight Forwarder, if any ² | UNDP will provide to the winning contractor the details of the Freight Forwarder at time of PO placement. |
| Distribution of shipping documents <i>(if using freight forwarder)</i> | UNDP will provide specific instructions at PO placement. |
| Customs, if required, clearing shall be done by: | UNDP |
| Ex-factory / Pre-shipment inspection | Not Applicable |
| Inspection upon delivery | Yes. The inspection of the physical appearance of the equipment will be done at the end user's location in the presence of UNDP, End User and Technical Expert. |
| Installation Requirements | Yes, equipment must be installed in each delivery location, in the presence of UNDP, End User and Technical Expert. |
| Testing Requirements | Yes. Testing will be conducted in the presence of UNDP, End User and Technical Expert. |
| Scope of Training on Operation and Maintenance | A one-time training is required after the delivery of all the MHEWS has been completed. User Manuals must also be submitted to and accepted by UNDP. |
| Commissioning | Yes. Commissioning will be conducted in the presence of UNDP, End User and Technical Expert. |

²A factor of the Incoterms stipulated in the ITB. The use of a UNDP preferred freight forwarder may be considered for purposes of ensuring forwarder's familiarity with procedures and processing of documentary requirements applicable to UNDP when clearing with customs authority of the country of destination.

| | |
|---|--|
| Warranty Period | <p>A Certificate of Warranty Security will be required. The successful Bidder must provide a Warranty Certificate in the amount commensurate to the value of the one (1) year warranty and technical support services period, to be submitted after satisfactory completion and acceptance by the end user.</p> <p>The Certificate of Warranty shall be named and titled to the Philippine Atmospheric Geophysical and Astronomical Services Administration (PAGASA).</p> <p>If the supplier fails to render the services required under the Warranty, after establishing that the defect is indeed caused by factor defect and not by mishandling or erroneous use of the equipment, PAGASA may make claims against the Certificate of Warranty to cover the value of the repair services required. In the event that appropriate claims shall have to be made by the PAGASA against the Certificate of Warranty, the value of the Certificate of Warranty shall also be reduced accordingly.</p> |
| Local Service Support | Yes. Identify the geographical distribution of local agents/service providers nearest to the location of the equipment |
| Technical Support Requirements | Troubleshooting support and preventive maintenance |
| After-sale services Requirements | <input checked="" type="checkbox"/> Warranty on Parts and Labor for minimum period of one (1) year <input checked="" type="checkbox"/> Technical Support |
| Payment Terms <i>(max. advanced payment is 20% as per UNDP policy)</i> | <p>40% Upon delivery and installation of the MHEWS equipment and accessories to all the delivery sites</p> <p>60%: Upon testing, integration and commissioning of the MHEWS equipment and accessories at all delivery site; Upon completion of the conduct of a one-time training and submission and acceptance of User Manuals; Upon submission and acceptance of a Warranty Certificate in the amount commensurate to the value of the one (1) year warranty and technical support services period, to be submitted after satisfactory completion and acceptance by the end user.</p> |
| Conditions for Release of Payment | <input checked="" type="checkbox"/> Inspection upon arrival at destination <input checked="" type="checkbox"/> Installation <input checked="" type="checkbox"/> Testing <input checked="" type="checkbox"/> Training on Operation and Maintenance <input checked="" type="checkbox"/> Written Acceptance of Goods based on full compliance with ITB requirements |
| All documentations, including catalogues, instructions and operating manuals, shall be in this language | English |

Section 6: Returnable Bidding Forms / Checklist

This form serves as a checklist for preparation of your Bid. Please complete the Returnable Bidding Forms in accordance with the instructions in the forms and return them as part of your Bid submission. No alteration to format of forms shall be permitted and no substitution shall be accepted.

Before submitting your Bid, please ensure compliance with the Bid Submission instructions of the BDS 22.

Technical Bid:

| | |
|--|--------------------------|
| Have you duly completed all the Returnable Bidding Forms? | |
| ▪ Form A: Bid Submission Form | <input type="checkbox"/> |
| ▪ Form B: Bidder Information Form | <input type="checkbox"/> |
| ▪ Form C: Joint Venture/Consortium/ Association Information Form | <input type="checkbox"/> |
| ▪ Form D: Qualification Form | <input type="checkbox"/> |
| ▪ Form E: Format of Technical Bid/Bill of Quantities | <input type="checkbox"/> |
| Have you provided the required documents to establish compliance with the evaluation criteria in Section 4? | <input type="checkbox"/> |

Price Schedule:

| | |
|-------------------------------|--------------------------|
| ▪ Form F: Price Schedule Form | <input type="checkbox"/> |
|-------------------------------|--------------------------|

Form A: Bid Submission Form

| | | | |
|-----------------|-------------------------------|-------|-------------|
| Name of Bidder: | [Insert Name of Bidder] | Date: | Select date |
| ITB reference: | [Insert ITB Reference Number] | | |

We, the undersigned, offer to supply the goods and related services required for [Insert Title of goods and services] in accordance with your Invitation to Bid No. [Insert ITB Reference Number] and our Bid. We hereby submit our Bid, which includes this Technical Bid and Price Schedule.

Our attached Price Schedule is for the sum of [Insert amount in words and figures and indicate currency].

We hereby declare that our firm, its affiliates or subsidiaries or employees, including any JV/Consortium /Association members or subcontractors or suppliers for any part of the contract:

- a) is not under procurement prohibition by the United Nations, including but not limited to prohibitions derived from the Compendium of United Nations Security Council Sanctions Lists;
- b) have not been suspended, debarred, sanctioned or otherwise identified as ineligible by any UN Organization or the World Bank Group or any other international Organization;
- c) have no conflict of interest in accordance with Instruction to Bidders Clause 4;
- d) do not employ, or anticipate employing, any person(s) who is, or has been a UN staff member within the last year, if said UN staff member has or had prior professional dealings with our firm in his/her capacity as UN staff member within the last three years of service with the UN (in accordance with UN post-employment restrictions published in ST/SGB/2006/15);
- e) have not declared bankruptcy, are not involved in bankruptcy or receivership proceedings, and there is no judgment or pending legal action against them that could impair their operations in the foreseeable future;
- f) undertake not to engage in proscribed practices, including but not limited to corruption, fraud, coercion, collusion, obstruction, or any other unethical practice, with the UN or any other party, and to conduct business in a manner that averts any financial, operational, reputational or other undue risk to the UN and we embrace the principles of the United Nations Supplier Code of Conduct and adhere to the principles of the United Nations Global Compact.

We declare that all the information and statements made in this Bid are true and we accept that any misinterpretation or misrepresentation contained in this Bid may lead to our disqualification and/or sanctioning by the UNDP.

We offer to supply the goods and related services in conformity with the Bidding documents, including the UNDP General Conditions of Contract and in accordance with the Schedule of Requirements and Technical Specifications.

Our Bid shall be valid and remain binding upon us for the period specified in the Bid Data Sheet.

We understand and recognize that you are not bound to accept any Bid you receive.

I, the undersigned, certify that I am duly authorized by [Insert Name of Bidder] to sign this Bid and bind it should UNDP accept this Bid.

Name: _____

Title: _____

Date: _____

Signature: _____

[Stamp with official stamp of the Bidder]

Form B: Bidder Information Form

| | |
|--|---|
| Legal name of Bidder | [Complete] |
| Legal address | [Complete] |
| Year of registration | [Complete] |
| Bidder's Authorized Representative Information | Name and Title: [Complete] Telephone numbers: [Complete] Email: [Complete] |
| Are you a UNGM registered vendor? | <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, [insert UGNM vendor number] |
| Are you a UNDP vendor? | <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, [insert UNDP vendor number] |
| Countries of operation | [Complete] |
| No. of full-time employees | [Complete] |
| Quality Assurance Certification (e.g. ISO 9000 or Equivalent) <i>(If yes, provide a Copy of the valid Certificate):</i> | [Complete] |
| Does your Company hold any accreditation such as ISO 14001 or ISO 14064 or equivalent related to the environment? <i>(If yes, provide a Copy of the valid Certificate):</i> | [Complete] |
| Does your Company have a written Statement of its Environmental Policy? <i>(If yes, provide a Copy)</i> | [Complete] |
| Does your organization demonstrates significant commitment to sustainability through some other means, for example internal company policy documents on women empowerment, renewable energies or membership of trade institutions promoting such issues | [Complete] |
| Is your company a member of the UN Global Compact | [Complete] |
| Contact person that UNDP may | Name and Title: [Complete] |

| | |
|--|--|
| contact for requests for clarifications during Bid evaluation | Telephone numbers: [Complete] Email: [Complete] |
| Please attach the following documents: | <ul style="list-style-type: none"> ▪ Company Profile, which should <u>not</u> exceed fifteen (15) pages, including printed brochures and product catalogues relevant to the goods and/or services being procured ▪ Certificate of Incorporation/ Business Registration ▪ Tax Registration/Payment Certificate issued by the Internal Revenue Authority evidencing that the Bidder is updated with its tax payment obligations, or Certificate of Tax exemption, if any such privilege is enjoyed by the Bidder ▪ Trade name registration papers, if applicable ▪ Quality Certificate (e.g., ISO, etc.) and/or other similar certificates, accreditations, awards and citations received by the Bidder, if any ▪ Environmental Compliance Certificates, Accreditations, Markings/Labels, and other evidences of the Bidder's practices which contributes to the ecological sustainability and reduction of adverse environmental impact (e.g., use of non-toxic substances, recycled raw materials, energy-efficient equipment, reduced carbon emission, etc.), either in its business practices or in the goods it manufactures ▪ Patent Registration Certificates, if any of technologies submitted in the Bid is patented by the Bidder ▪ Certification or authorization to act as Agent on behalf of the Manufacturer, or Power of Attorney. ▪ Export Licenses, if applicable ▪ Local Government permit to locate and operate in assignment location, if applicable ▪ Official Letter of Appointment as local representative, if Bidder is submitting a Bid on behalf of an entity located outside the country |

Form C: Joint Venture/Consortium/Association Information Form

| | | | |
|-----------------|-------------------------------|-------|-------------|
| Name of Bidder: | [Insert Name of Bidder] | Date: | Select date |
| ITB reference: | [Insert ITB Reference Number] | | |

To be completed and returned with your Bid if the Bid is submitted as a Joint Venture/Consortium/Association.

| No | Name of Partner and contact information <i>(address, telephone numbers, fax numbers, e-mail address)</i> | Proposed proportion of responsibilities (in %) and type of goods and/or services to be performed |
|----|--|--|
| 1 | [Complete] | [Complete] |
| 2 | [Complete] | [Complete] |
| 3 | [Complete] | [Complete] |

| | |
|--|------------|
| Name of leading partner (with authority to bind the JV, Consortium, Association during the ITB process and, in the event a Contract is awarded, during contract execution) | [Complete] |
|--|------------|

We have attached a copy of the below referenced document signed by every partner, which details the likely legal structure of and the confirmation of joint and severable liability of the members of the said joint venture:

☐ Letter of intent to form a joint venture **OR** ☐ JV/Consortium/Association agreement

We hereby confirm that if the contract is awarded, all parties of the Joint Venture/Consortium/Association shall be jointly and severally liable to UNDP for the fulfillment of the provisions of the Contract.

Name of partner: _____ Name of partner: _____

Signature: _____ Signature: _____

Date: _____ Date: _____

Name of partner: _____ Name of partner: _____

Signature: _____ Signature: _____

Date: _____ Date: _____

Form D: Eligibility and Qualification Form

| | | | |
|-----------------|-------------------------------|-------|-------------|
| Name of Bidder: | [Insert Name of Bidder] | Date: | Select date |
| ITB reference: | [Insert ITB Reference Number] | | |

If JV/Consortium/Association, to be completed by each partner.

History of Non- Performing Contracts

| <input type="checkbox"/> Non-performing contracts did not occur during the last 3 years | | | |
|---|------------------------------------|---|---|
| <input type="checkbox"/> Contract(s) not performed in the last 3 years | | | |
| Year | Non- performed portion of contract | Contract Identification | Total Contract Amount (current value in US\$) |
| | | Name of Client: Address of Client: Reason(s) for non-performance: | |

Litigation History (including pending litigation)

| <input type="checkbox"/> No litigation history for the last 3 years | | | |
|---|-----------------------------|---|---|
| <input type="checkbox"/> Litigation History as indicated below | | | |
| Year of dispute | Amount in dispute (in US\$) | Contract Identification | Total Contract Amount (current value in US\$) |
| | | Name of Client: Address of Client: Matter in dispute: Party who initiated the dispute: Status of dispute: Party awarded if resolved: | |

Previous Relevant Experience

Please list only previous similar assignments successfully completed in the last 3 years.

List only those assignments for which the Bidder was legally contracted or sub-contracted by the Client as a company or was one of the Consortium/JV partners. Assignments completed by the Bidder's individual experts working privately or through other firms cannot be claimed as the relevant experience of the Bidder, or that of the Bidder's partners or sub-consultants, but can be claimed by the Experts themselves in their CVs. The Bidder should be prepared to substantiate the claimed experience by presenting copies of relevant documents and references if so requested by UNDP.

| Project name & Country of Assignment | Client & Reference Contact Details | Contract Value | Period of activity and status | Types of activities undertaken |
|--------------------------------------|------------------------------------|----------------|-------------------------------|--------------------------------|
| | | | | |
| | | | | |
| | | | | |

Bidders may also attach their own Project Data Sheets with more details for assignments above.

☐ Attached are the Statements of Satisfactory Performance from the Top 3 (three) Clients or more.

Financial Standing

| | | |
|--|------|-----|
| Annual Turnover for the last 3 years | Year | USD |
| | Year | USD |
| | Year | USD |
| Latest Credit Rating (if any), indicate the source | | |

| Financial information (in US\$ equivalent) | Historic information for the last 3 years | | |
|---|---|--------|--------|
| | Year 1 | Year 2 | Year 3 |
| | <i>Information from Balance Sheet</i> | | |
| Total Assets (TA) | | | |
| Total Liabilities (TL) | | | |
| Current Assets (CA) | | | |
| Current Liabilities (CL) | | | |
| | <i>Information from Income Statement</i> | | |
| Total / Gross Revenue (TR) | | | |
| Profits Before Taxes (PBT) | | | |
| Net Profit | | | |
| Current Ratio | | | |

☐ Attached are copies of the audited financial statements (balance sheets, including all related notes, and income statements) for the years required above complying with the following condition:

- Must reflect the financial situation of the Bidder or party to a JV, and not sister or parent companies;
- Historic financial statements must be audited by a certified public accountant;
- Historic financial statements must correspond to accounting periods already completed and audited. No statements for partial periods shall be accepted.

Form E: Format of Technical Bid

| | | | |
|-----------------|-------------------------------|-------|-------------|
| Name of Bidder: | [Insert Name of Bidder] | Date: | Select date |
| ITB reference: | [Insert ITB Reference Number] | | |

The Bidder's Bid should be organized to follow this format of the Technical Bid. Where the bidder is presented with a requirement or asked to use a specific approach, the bidder must not only state its acceptance, but also describe how it intends to comply with the requirements. Where a descriptive response is requested, failure to provide the same will be viewed as non-responsive.

SECTION 1: Bidder's qualification, capacity and expertise

- 1.1 General organizational capability which is likely to affect implementation: management structure, financial stability and project financing capacity, project management controls, extent to which any work would be subcontracted (if so, provide details).
- 1.2 Relevance of specialized knowledge and experience on similar engagements done in the region/country.
- 1.3 Quality assurance procedures and risk mitigation measures.
- 1.4 Organization's commitment to sustainability.

SECTION 2: Scope of Supply, Technical Specifications, and Related Services

This section should demonstrate the Bidder's responsiveness to the specification by identifying the specific components proposed, addressing the requirements, as specified, point by point; providing a detailed description of the essential performance characteristics proposed; and demonstrating how the proposed bid meets or exceeds the requirements/specifications. All important aspects should be addressed in sufficient detail.

- 2.1 A detailed description of how the Bidder will deliver the required goods and services, keeping in mind the appropriateness to local conditions and project environment. Details how the different service elements shall be organized, controlled and delivered.
- 2.2 Explain whether any work would be subcontracted, to whom, how much percentage of the requirements, the rationale for such, and the roles of the proposed sub-contractors and how everyone will function as a team.
- 2.3 The bid shall also include details of the Bidder's internal technical and quality assurance review mechanisms.
- 2.4 Implementation plan including a Gantt Chart or Project Schedule indicating the detailed sequence of activities that will be undertaken and their corresponding timing.
- 2.5 Demonstrate how you plan to integrate sustainability measures in the execution of the contract.

| Goods and services to be Supplied and Technical Specifications | | | Your response | | | | |
|--|--|-----|--|---|--|--|----------|
| | | | Compliance with technical specifications | | Delivery Date <i>(confirm that you comply or indicate your delivery date)</i> | Quality Certificate/ Export Licenses, etc. <i>(indicate all that apply and attach)</i> | Comments |
| | | | Yes, we comply | No, we cannot comply <i>(indicate discrepancies)</i> | | | |
| Description and Minimum /Mandatory Specifications | Technical Specifications (Minimum Specifications) | Qty | | | | | |
| Controller/ Data Logger | Power Supply: 50Watts to 200watts solar panel and wind turbine with greater than or equal to 60AH deep cycle battery requiring 12V charge controller 2 pulse input port 2 x DI ports to monitor door closing/opening 1 x series TTL port more than 10 spare GPIO ports with built in 10/100T-TX Lan with built in Wi-fi connectivity 1.2Ghz Processor Speed minimum Storage of 8GB SD Storage 8 x Analog to Digital inputs (10-bits or 12-bits available upon request) for system voltage monitoring 4-20mA sensors with built in GSM Modem that can accommodate 10 or more mobile recipients with built in GPS modem RS-232 port for AWS RS-232 port for UHF/VHF Radio Serial Data Communication | 21 | | | | | |
| Radio | Frequency range: VHF: 136-174Mhz UHF: 300-370Mhz, 400-440Mhz, 430-470MHz, 450-490Mhz Channel Spacing: 12.5khz/24KHz Channel Capacity: 16 Power Supply: 9.5V-16V DC Operation Voltage: 12V DC | 21 | | | | | |

| | | | | | | | |
|---------------------|---|----|--|--|--|--|--|
| | <p>(Nominal) Temperature Range: - 30°C ~ + 65°C(Operating) <i>Transmitter:</i> Output Power: 1~25W(Programmable) 3Modulation Type: F3D/F3E urrent: 5W RF Power, 12V, 1.5A 1W RF Power, 12V, 1A Standby (Muted) Current: 65mA Frequency Deviation: <5KHz (25KHz) <2.5KHz(12.5KHz) Audio Response: 300Hz~3KHz + 1/-3dB (25KHz)</p> <p><i>Receiver:</i> Adj. Channel Power: <=70dBc(25KHz) <=65dBc(12.5KHz) TX SNR: >45dB(25KHz) >40dB(12.5KHz) RX Sensitivity (12 dB Sinad): <=119dBm Extreme: <=115dBm Intermodulation: >65dB Audio Output Power: 0.5W @ 8Ω RX Audio Distortion: <5% Image Rejection: >70dB Spurious Rejection: >70dB</p> <p><i>With Data Modem:</i> Serial Interface: TTL/RS-232/RS-485(8N1) Supply Voltage: DC +12.5V Data Transmission Mode: Transparent</p> <p>Galvanized monopole antenna mast with steps, guy wires, turnbuckles, brackets, lightning protection. The mast and guy wires rest on concrete bases.</p> | | | | | | |
| Receiver Antenna | Receiving frequency band: L1 GPS Built in a 20dB low noise amplifier and low loss filter, perfect support passive antenna. | 21 | | | | | |

| | | | | | | | |
|--|--|--|--|--|--|--|--|
| | <p>Antenna side to build high-quality ESD protection [TVS tube, to ensure that the ESD to achieve 8KV above [air discharge]</p> <p>Receiving frequency band: E1B/C1 Galileo</p> <p>Default support for wide area differential GPS enhancement system S137, [S129] Wan enhanced satellite</p> <p>Receiving channel: 56CH</p> <p>Positioning performance: <2.5m[Autonomous] [50%] <2.0m[SBAS]</p> <p>Rate: < 0.1m/s; direction: <0.5Degrees</p> <p>Timing accuracy: 30ns</p> <p>Reference coordinate system: WGS-84</p> <p>Maximum altitude: 50000 M</p> <p>Max speed: 500m/s</p> <p>Acceleration: < 4G</p> <p><i>Interface electrical properties:</i></p> <p>Wide voltage range: the main power supply is +3.3V~+5.5V, self-owned RTC power supply</p> <p>Tracking sensitivity: -161dBm</p> <p>Capture sensitivity: -147dBm</p> <p>Cold start time: 30s [average]</p> <p>Warm start time: 30s [average]</p> <p>Hot start time: 1s [average]</p> <p>The auxiliary ephemeris data of AGPS [network]: 3S</p> <p>Operating temperature: -40 C to C +85 C</p> <p>Package size:124x96.6mm</p> <p>Built in 25x25x4mm passive ceramic antenna</p> <p>Other parameters:</p> <p>Standard clock pulse: 0.25Hz~10MHz</p> <p>Location update rate: 1Hz</p> <p>Usb port interface [default]</p> <p>Data rate: 9600bps</p> <p><i>Computer Interfacing:</i></p> <p>USB communication protocol</p> | | | | | | |
|--|--|--|--|--|--|--|--|

| | | | | | | | |
|----------|---|------------|--|--|--|--|--|
| | support operating system: VistaXP, CE Windows10 Support: XP, win7, win8, win10 (support for all series windows system drive) Windows USB drivers Download U-center8.25 USB GPS test software Windows Download | | | | | | |
| IP Radio | <p>Radio</p> Frequency range: 4.940 - 4.990 GHz Channel Size: 5, 10, 20 MHz Modulation Schemes: OFDM (256-QAM, 64-QAM, 16-QAM, QPSK, BPSK) Data rates @ 20 MHz: 173, 144, 130, 116, 87, 58, 43, 29, 14 Mbps | 6 pairs | | | | | |
| | <p>Antenna: Integrated directional dual-pol 23 dBi panel or 2 N- type connectors</p> <p>Wired</p> First Interface: 10/100/1000 Base-T with PoE IN (RJ45) Second Interface: 10/100/1000 Base-T with PoE OUT (RJ45) | | | | | | |
| | <p>Power</p> Power input method, voltage: PoE 802.3at, isolated 42 - 57 VDC Power consumption (max): 8.6W Power output method, voltage: PoE 802.3af, 48 VDC, 12.95W maximum w/ PoE inserter and AC/DC adapter | | | | | | |
| | Operating temperature: -40°C to +65°C Humidity: 0 to 90% | | | | | | |
| | <p>Internal antenna</p> Frequency range: 4.9 – 5.9 GHz Gain: 23 dBi Polarization: Dual linear Cross-pol Isolation: 27 dBi VSWR: 1.5:1 Azimuth beamwidth (Hpol): 6 | | | | | | |

| | | | | | | | |
|-------------------------|--|----|--|--|--|--|--|
| | deg Azimuth beamwidth (Vpol): 7 deg Elevation beamwidth: 9 deg | | | | | | |
| Solar Charge Controller | Rated Voltage: 12V/24V Wind Turbine power: 300Watts Solar Panel Power: 200Watts Charging mode: MPPT charging for wind turbine PWM charging for Solar Panel Display: LCD (remark Voltage, charge current, battery volumetric) Battery Type: AGM, GEL, Lead-acid | 15 | | | | | |
| Solar Panel | Maximum Power (pmax): 200Watts Maximum Power Voltage: 36V Maximum Power Current: 5.56A Open Circuit Voltage: 45V Short Circuit Current: 6A Power Tolerance: +5% Module Efficiency STC: 15.30% Operating Temperature range: -40 C to 85 C Maximum System Voltage: 1000V Series Fuse Rating: 15A Nominal Operating Cell Temperature: 45 ±2 °C Cell Type: Monocrystalline 156 x 156mm Front Glass: 3.2mm, High Transmission, Low Iron, Tempered glass Frame Type: Anodized Aluminum Alloy Junction Box Protection class: IP67 Rated | 15 | | | | | |
| Wind Turbine | Generator power: 200Watts Wheel Diameter: 0.47m Turbine height: 0.93 m Blades Material: Casting Aluminum Alloy Rated wind speed: 11m/s Startup wind turbine: 1.5m/s Survival turbine: 45m/s Output Voltage: 12v/24v | 15 | | | | | |

| | | | | | | | |
|--|---|---|--|--|--|--|--|
| | <p>Generator type: Maglev Generator</p> <p>Control System: electromagnet</p> <p>Speed regulation: automatically adjust windward direction</p> <p>Working temperature: from -40 °C to 80°C</p> | | | | | | |
| Water Level Sensor (Tidal Gauge Sensor) | <p>Pressure Range: 0-10m, 0-20m, of 0-30m or 0-500M</p> <p>Overload: 150% F.S.</p> <p>Burst Pressure: 300% F.S.</p> <p>Accuracy: $\leq \pm 0.5\%$ F.S.</p> <p>Temperature Compensation: - 10°C~65°C</p> <p>Medium compatible: Compatible with 316L Stainless Steel</p> <p>Electronic connection: Fixed cable and water proof IP68</p> <p>Response time: ≤ 10 ms (standard)</p> <p>Pressure Type: Gauge pressure</p> <p>Certificate: intrinsic safety or ExdIICT6 and CE Certificate approving</p> <p>EMC Standard: electromagnetic radiation: EN50081-1/-2 electromagnetic susceptibility: EN50082-2</p> <p>Lighting Protection: Air conduction more than 8000 V external sensor more than 4000 V protection</p> | 6 | | | | | |
| Digital Humidity Pressure Temperature Sensor | <p>Supply Voltage: 12VDC</p> <p>Operating Range</p> <p>Temperature: -40 to +85 deg. C.</p> <p>Relative Humidity: 0 to 100%</p> <p>Barometric Pressure: 300 to 1100 hPa</p> <p>Key parameters for humidity sensor</p> <p>Response Time: 1s</p> <p>Accuracy Tolerance: +/- 3% relative humidity</p> <p>Hysteresis: +/- 1%</p> | 3 | | | | | |

| | | | | | | | |
|-----------------------|--|---|--|--|--|--|--|
| | <p>relative humidity</p> <p>Key parameters for pressure sensor</p> <p>RMS Noise: 0.2Pa, equiv. to 1.7cm</p> <p>Offset temperature coefficient: +/- 1.5 Pa/K, equiv. to +/-12.6 cm at 1 deg. C temperature change</p> | | | | | | |
| Wind Direction Sensor | <p>Features:</p> <p>In line with the WMO World Meteorological Organization specifications (CIMO Guide)</p> <p>High sensitivity: start wind speed $\leq 0.3\text{m/s}$</p> <p>0-360 degrees show no dead ends</p> <p>Parameters:</p> <p>Range: 0-360 °</p> <p>Accuracy: $\pm 1\%$ °</p> <p>Resolution: of 1 °</p> <p>Start wind speed: $\leq 0.3\text{m/s}$</p> <p>Working environment: temperature -50 °C ~ 80 °C, humidity $\leq 100\%$ RH</p> <p>Power supply:</p> <p>Standard: DC5V</p> <p>Other: DC12V, DC24V</p> <p>Output signal:</p> <p>Standard: 0-5V voltage signal</p> | 3 | | | | | |
| Wind Speed Sensor | <p>Features:</p> <p>In line with the WMO World Meteorological Organization specifications (CIMO Guide)</p> <p>High sensitivity: start wind speed $\leq 0.3\text{m/s}$</p> <p>Measuring range: measuring range 0-70m/s, 0-45m/s</p> <p>High accuracy: Accuracy is $\pm (0.3 \pm 0.03V) \text{m/s}$ (V:</p> | 3 | | | | | |

| | | | | | | | |
|------------------------|---|----|--|--|--|--|--|
| | <p>wind speed)</p> <p>Parameters:</p> <p>Measuring range: 0-70 m / s</p> <p>Measurement accuracy: $\pm (0.3 \text{ } 0.03 \text{ V}) \text{ m / s (V: wind speed)}$</p> <p>Starting wind speed: Lt; 0.3 m / s</p> <p>Input voltage: 5V, 12V, 24V power supply range</p> <p>Output signal: Standard: pulse signal output, Other: 0-5V, 4-20mA, RS485 and other signal output</p> <p>Working environment: Temperature -20 ° C ~ 60 ° C; humidity $\leq 100\%$ RH</p> | | | | | | |
| Solar Radiation Sensor | <p>Sensitivity: 7~ 14 $\mu \text{ V/w.m-2}$</p> <p>Spectral range: 0.3 -3 $\mu \text{ m}$</p> <p>Measuring range: 0~2000W/ m^2</p> <p>Power Supply mode: 5VDC/12VDC/24VDC</p> <p>Output type:</p> <p>Pulse: pulse signal</p> <p>Current: 4~20mA</p> <p>RS232</p> <p>RS485</p> <p>Line length: 2.5m</p> <p>Response time: $\leq 35 \text{ sec (99\%)}$</p> <p>Internal resistance: about 350Ω</p> <p>Cosine response: $\leq 7\%$ (solar height angle of 10°)</p> <p>Azimuth response error: $\leq 5\%$ (solar altitude angle of 10°)</p> <p>Temperature characteristics: $\pm 2\%$ (-10°C ~ 40°C)</p> <p>Working environment temperature: -40°C ~ 50°C</p> <p>Non-linearity: $\leq 2\%$</p> | 3 | | | | | |
| Horn Siren Amplifier | <p>Working Voltage: 12VDC / 24VDC</p> <p>Output Power: 200Watts</p> <p>Waterproof: IP65</p> <p>Ambient Temperature: -40°C ~ 65 °C</p> <p>Sound Pressure: 120-130DB</p> <p>With 10 feet of cable to speaker</p> | 11 | | | | | |

| | | | | | | | |
|------------------|---|----|--|--|--|--|--|
| | and 8.5 feet cable to power | | | | | | |
| Horn Siren | <p>Dimensions: 8.46" L x 4.65"H x 7.443"</p> <p>Impedance: 4Ω / 6Ω/ 8 Ω/ 11 Ω</p> <p>Power: 200Watts</p> <p>Frequency range: 300-4600Hz</p> <p>Distortion factor: ≤5%</p> <p>Sound Pressure: 120-130dB</p> | 11 | | | | | |
| Staff Gauges | <p>Reflectorized stainless steel water level gauge installed at any structure (i.e. pier of the bridge, retaining) of the identified stations.</p> <p>Dimensions: 1-foot wide (length will be based on the actual condition of the station location)</p> <p>Material: powder coated aluminum</p> <p>Colors: white background with black markings</p> | 11 | | | | | |
| Dashboard Screen | <p>LED TV</p> <p>43inches</p> <p>Resolution: 1920x1080</p> | 8 | | | | | |
| Server Database | <p>Workstation i7 Windows PC with UPS, 1-5W UHF radio on a commercial power supply with backup and emergency revert, Omni fiberglass antenna with low-loss cable and connectors, lightning and electrical surge protection.</p> <p>Localized warning broadcast capable within 1km radius.</p> <p>Master and slave database servers to process and store hierarchical hydrological data (PAGASA format).</p> <ul style="list-style-type: none"> Slave (backup) database server to act as standby server Bespoke interactive web-based map data display. <p>Can perform basic hydrological and mathematical function and to receive sensor readings via</p> | 4 | | | | | |

| | | | | | | | |
|-------------------|--|----|--|--|--|--|--|
| | radio links | | | | | | |
| Equipment Housing | Powder coated NEMA-compliant box | 21 | | | | | |
| Tower mast | Galvanized tower mast (for the equipment listed in Table 2) Length based on actual site condition | 21 | | | | | |

| Other Related services and requirements <i>(based on the information provided in Section 5b)</i> | Compliance with requirements | | Details or comments on the related requirements |
|---|------------------------------|---|---|
| | Yes, we comply | No, we cannot comply <i>(indicate discrepancies)</i> | |
| e.g. Delivery Term | | | |
| Warranty | | | |
| Local Service Support | | | |
| | | | |
| | | | |

SECTION 3: Management Structure and Key Personnel

- 3.1 Describe the overall management approach toward planning and implementing the project. Include an organization chart for the management of the project describing the relationship of key positions and designations. Provide a spreadsheet to show the activities of each personnel and the time allocated for his/her involvement.
- 3.2 Provide CVs for key personnel that will be provided to support the implementation of this project using the format below. CVs should demonstrate qualifications in areas relevant to the scope of goods and/or services.

Format for CV of Proposed Key Personnel

| | |
|-------------------------------------|--|
| Name of Personnel | [Insert] |
| Position for this assignment | [Insert] |
| Nationality | [Insert] |
| Language proficiency | [Insert] |
| Education/Qualifications | <i>[Summarize college/university and other specialized education of personnel member, giving names of schools, dates attended, and degrees/qualifications obtained.]</i> |
| | [Insert] |
| Professional certifications | <i>[Provide details of professional certifications relevant to the scope of goods and/or services]</i> |
| | <ul style="list-style-type: none"> ▪ Name of institution: [Insert] ▪ Date of certification: [Insert] |

| | |
|--|---|
| Employment Record/ Experience | <i>[List all positions held by personnel (starting with present position, list in reverse order), giving dates, names of employing organization, title of position held and location of employment. For experience in last five years, detail the type of activities performed, degree of responsibilities, location of assignments and any other information or professional experience considered pertinent for this assignment.]</i> |
| | [Insert] |
| References | <i>[Provide names, addresses, phone and email contact information for two (2) references]</i> |
| | Reference 1: [Insert] Reference 2: [Insert] |

I, the undersigned, certify that to the best of my knowledge and belief, the data provided above correctly describes my qualifications, my experiences, and other relevant information about myself.

Signature of Personnel

Date (Day/Month/Year)

FORM F: Price Schedule Form

| | | | |
|-----------------|-------------------------------|-------|-------------|
| Name of Bidder: | [Insert Name of Bidder] | Date: | Select date |
| ITB reference: | [Insert ITB Reference Number] | | |

The Bidder is required to prepare the Price Schedule following the below format. The Price Schedule must include a detailed cost breakdown of all goods and related services to be provided. Separate figures must be provided for each functional grouping or category, if any.

Any estimates for cost-reimbursable items, such as travel of experts and out-of-pocket expenses, should be listed separately.

Currency of the Bid: PHP for local bidders and USD for international bidders

Price Schedule

| Item # | Description | UOM | Quantity | Unit Price | Total Price |
|--|--|-----|----------|------------|-------------|
| | <Please indicate breakdown of each component as per Section 5(a) | | | | |
| | | | | | |
| Transportation/Delivery Cost | | | | | |
| Bid Total DDP / DAT / DAP, off-loaded/cleared, Place, Country (Incoterms 2010) | | | | | |
| Installation | | | | | |
| Training | | | | | |
| Warranty | | | | | |
| After Sales | | | | | |
| GRAND TOTAL | | | | | |

Name of Bidder: _____

Authorised signature: _____

Name of authorised signatory: _____

Functional Title: _____

