

## CLARIFICATION QUESTIONS

RFT: 2023/024  
File: AP\_3/28/2  
Date: 28 August 2023  
To: Interested Service Providers  
Contact: Maraea S. Pogi ([maraeap@sprep.org](mailto:maraeap@sprep.org))

**Subject: Request for tenders (RFT): Supply, provide training, installation, and commissioning of the Vanuatu C-Band Dual Polarization Weather Radar (a turnkey project).**

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### **Question 1:**

In section 6.2 it states “A proposal will be rejected if it fails to achieve 70% or more in the technical criteria. Does this mean that the proposal must meet 70% of the 80% of the technical score or does it mean that the proposal must meet 70% of all the technical requirements that begin on page 10 and continue through page 36? Can you please explain further?

### **Response:**

The proposal must meet 70% of the technical evaluation criteria score a i.e, 80% as indicated in section 6.2.

### **Question 2:**

Does the purchaser pay for the travel of the technicians to travel for the Factory Acceptance Test or should it be included in bidder pricing?

### **Response:**

It should be included in the bidder pricing.

### **Question 3:**

What is the time expectation for scheduled delivery?

### **Response:**

The term of the contract will be at least a year (12 months from the date of contract signing). Contract to be completed before the tropical cyclone season if possible.

### **Question 4:**

Does the project have a budget that can be shared?

### **Response:**

As per clause 6.2 of the tender document, scores will be awarded according to the financial proposal submitted. The financial proposal is therefore competitive, and every bidder is to propose costs as applicable to the scope of work in the Terms of Reference.

### **Question 5:**

In reference to Technical Specification in Section 2.4.2, will the purchaser pre-pay for the 10 years of spares?

Response:

Vanuatu Meteorology and Geohazards Department will purchase spare parts for the full lifetime of the weather radar in consultation with the successful supplier. VMGD will work with the successful supplier to develop a procurement plan for the spare parts.

**Question 6:**

In reference to Technical Specification in Section 2.8, what documentation is available that details data integration?

Response:

The VMGD uses the Synergie Workstation from Meteo-France International and the documentation indicates that the radar products are ingested in OPERA-BUFR format. The format is described on the OPERA web site.

ODIM\_H5: This to EUMENET OPERA ODIM HDF5 data format. It is required to supply version 2.4 (or later). The documentation available online at:

[https://www.eumetnet.eu/wp-content/uploads/2021/07/ODIM\\_H5\\_v2.4.pdf](https://www.eumetnet.eu/wp-content/uploads/2021/07/ODIM_H5_v2.4.pdf)

**Question 7:**

In reference to Technical Specification in Section 3.1 b, please provide clarification.

Response:

The statement in 3.1b is a standard definition of noise and is included as clarification that noise must be filtered and the testing be conducted under standard or normal operating conditions for fore-caster use. See Annex 2 of the Request for Tender (RFT) for an example of a scan strategy.

**Question 8:**

In reference to Technical Specification in Section 3.1, the specified references 3.4.2 e, 3.4.1 a, 3.3.4 c, 3.3.2 d, 3.4.1 b, 3.4.4 l.c and, 3.4.4 k seem to be missing within the document. In addition, the Section illustrating the data format referenced in the requirement, 4.4.3 is also missing in the document. Could you please advise on how to proceed?

Response:

Please delete all the cross-references. The wording in section 3.1 is sufficient.

replace 4.4.3 to 4.4.2

**Question 9:**

In reference to Technical Specification in Section 3.4a, please clarify if the mobile phone reset functionality is required?

Response:

Remote reset of the radar system is a mandatory requirement. A specific Mobile Phone reset functionality is a nice to have.

**Question 10:**

In reference to Technical Specification in Section 4.4.2a, is 8-bit sufficient or do you require 16 bit or higher?

Response:

The requirement is for 8- or 16-bit data. There is no requirement for higher data resolution.

**Question 11:**

In reference to Technical Specification in Section 4.4.2d, please clarify “UF”.

Response:

UF is Universal Format.

**Question 12:**

In reference to Technical Specification in Section 5.1.8, does SPREP have a preferred GIS solution (E.g. ESRI, QGIS, OGC, etc.) where different projections are desired?

Response:

The Radar Product Generator should support the different projections indicated. SPREP/VMGD does not have a preferred GIS solution.

**Question 13:**

In reference to Technical Specification in Section 5.4 C, does SPREP have an existing web platform used for meteorological visualization?

Response:

The VMGD has an existing web platform for meteorological products to the public - <https://www.vmgd.gov.vu/> . Section 5.4 refers to a web application for internal use.

**Question 14:**

In the meantime, and to prepare the best and most accurate response to your requirements, would you please consider extending the deadline for submission of offers by two (2) weeks, until September 27, 2023? We will need this additional time to fully understand the full scope of the project and obtain any necessary subcontractor quotes to meet all the requirements.

Response:

Unfortunately, it is not possible to extend the deadline.

**Question 15:**

As a first question, the tender states that this will be a turnkey procurement and you are providing an appendix with the geological study of the site, as well as an appendix listing several local construction/ engineering companies. We have not been able to determine in the tender documents, however, what is the full scope of the civil works portion within the tender specs. Are you planning on contracting all the construction and civil works (tower, shelter, site conditioning, access, etc.) for the radar under a separate contract to one of the local companies listed in the attachment? Please clarify.

Response:

The supplier will be responsible for all the civil works for the installation and commissioning of the weather system. The supplier can work with the local companies listed in the attachment or organise alternative arrangements for the civil works.

**Question 16:**

Further to our earlier email communication of August 10, 2023 and upon detailed review of the technical specifications for this project included in your Annex A, Terms of Reference, please clarify the following:

- i) Section 3.1. b) – Please define “probability of detection (POD) of 50%” and the recommended procedure to test it.

Response:

The statement in 3.1b is a standard definition of noise and is included as clarification that noise must be filtered and the testing be conducted under standard or normal operating conditions for forecaster use. See Annex 2 of the Request for Tender (RFT) for an example of a scan strategy.

- ii) Section 3.1. “The Bidder shall provide the data in a format specified in section 4.4.3 in this specification” Please note that there is no Section 4.4.3 in the specification document provided.

Response:

4.4.3 should be replaced by 4.4.2

- iii) Section 3.3.4. b. Please clarify the use case for this functionality.

Response:

The Doppler spectrum is to check the quality of the radar data and the clutter filtering. It may be used to estimate Drop Size Distribution and radar calibration in vertically pointing mode.

- iv) Section 3.3.4. d. Please clarify the use case for this functionality. From our history, we have not experienced a drift of the burst timing in any radar supplied by GAMIC or EEC.

Response:

Lack of drift in the burst timing is excellent. The use case is to check the determination of zero time or range for a pulse, if the leading or trailing edge of the transmit pulse “significantly drops” due to hardware failure/again and determining when the pulse start/ends and is compromised.

- v) Section 3.3.5. f. Please clarify your definition/understanding of recovery of 2nd trip.

Response:

See references and documents provided. See attached papers by Zrnicek et al on phase modulation, Joe et al on random phase and examples from CIMO guide.

- vi) Section 4.4.2. d. Please inform the exact NetCDF Format to be supplied.

Response:

In 4.4.2d and 5.1, the reference to NetCDF is the same as netCDF based WMO FM 301-cfRadial2. Another way to say this is that the WMO FM 301, and NetCDF (BOM) are all the same. The WMO has approved WMO FM 301-cfRadial2 which was based on the BOM and NCAR CF-Radial NetCDF development.

WMO FM 301-cfRadial2: The latest documentation is available in the WMO publication No. 1360 (Commission for Observation, Infrastructure and Information Systems: Abridged Final Report of the Second Session), available online at: [https://library.wmo.int/index.php?lvl=notice\\_display&id=22251](https://library.wmo.int/index.php?lvl=notice_display&id=22251) . Please see p. 934 onwards for The Climate and Forecast

Conventions for netCDF, and p. 944 onwards for the details of FM 301 WMO CF Radial. This format will also be documented in due course in the WMO Manual on Codes (WMO-No. 306).

vii) Section 5.1. iv. Please provide the exact data format descriptions.

Response:

See previous responses regarding NetCDF and OPERA-BUFR. ODIM\_H5: This to EUMENET OPERA ODIM HDF5 data format. It is required to supply version 2.4 (or later). The documentation available online at:

[https://www.eumetnet.eu/wp-content/uploads/2021/07/ODIM\\_H5\\_v2.4.pdf](https://www.eumetnet.eu/wp-content/uploads/2021/07/ODIM_H5_v2.4.pdf)

viii) Section 5.2.7.d. Please provide the data format of the lighting data

Response:

Vanuatu Meteorology and Geohazards Department has lighting data available in normal text and csv format.

**Question 17:**

What is the financial source for this project?

Response:

The weather radar is fully funded by the Green Climate Fund (GCF) through the Climate Information Services for Resilient Development Planning in Vanuatu Project – FP035

**Question 18:**

The bidding documents require a magnetron transmitter. Can we apply with a klystron or an all-solid-state transmitter?

Response:

This is up to the supplier; however, the proposals will be assessed based on the requirements outlined in the ToR.

**Question 19:**

The project involves 6 local construction enterprises and 4 engineering consulting enterprises. May I ask if we can cooperate with CCECC as the cooperation partner for localized civil construction?

Response:

SPREP has not objections to this proposal.

**Question 20:**

According to the bidding document, it is necessary to integrate weather radar into a weather forecast network. May I know the brand and model of the existing weather radar in Vanuatu?

Response:

The VMGD uses the Synergie Workstation from Meteo-France International and the documentation indicates that the radar products are ingested in OPERA-BUFR format. The format is described on the OPERA web site <https://www.eumetnet.eu>. This tender will deliver the first weather radar system in Vanuatu.

**Question 21:**

To implement this project more accurately, we need to conduct an on-site survey in Vanuatu. When can we go to Vanuatu and will the local meteorological department support us to the survey work?

Response:

The Vanuatu Meteorology and Geo-hazards Department will provide support to requests for onsite survey at the weather radar site.

**Question 22:**

Annex A 2.2.4 For how long does the backup generator need to run? Is it only required to provide power to the Radar, or other site infrastructure (such as any security or lighting) as well.

Response:

The backup generator is required for the radar only.

**Question 23:**

Annex A 2.7.2 Based upon the constraint in Section 2.6, and the question in 2.7.2, is the bidder permitted to propose a maintenance schedule with shorter intervals?

Response:

This is acceptable to SPREP.

**Question 24:**

Annex A 3.4 Is the monitoring of the equipment to be done by SPREP in Vanuatu or can it be done remotely or by a third party?

Response:

Monitoring will be done by SPREP and VMGD in Vanuatu and remotely if required.

**Question 25:**

Annex A 6.2 For training in Vanuatu, will SPREP provide training facilities including A/V capability.

Response:

SPREP will provide the training facilities including A/V capability.

**Question 26:**

Annex B Site report. Is it a possibility to get another deeper, core drill soil test?

Response:

This can be provided when it is available.

**Question 27:**

Annex B What is the significance of the Garden area? Is it in the way of access to site? Will it need to be cleared and restored as part of the project?

Response:

VMGD will be responsible for site clearance. This will be undertaken as soon as the land acquisition process is complete.

**Question 28:**

Annex B Note the tower to the East of site belongs to Vodafone, is there anything we need to know from Vodafone / SPREP in terms of path access or possible signals interference with their tower?

Response:

VMGD will organize an inception meeting between the successful supplier and Vodafone/SPREP to discuss possible signal interference if any.

**Question 29:**

Annex B What is the significance of Building 2? What does 20% completion of the building mean for us as the tenderer? What is the meaning of “willing to relocate” costs? Does the building need relocation? If so, by who? To where?

Response:

VMGD will be responsible for site clearance and remove any physical structures on the radar site.

**Question 30:**

Annex B How far away is there power available from the site?

Response:

Power will be available on the weather radar site.

**Question 31:**

Annex B What width and type of surface is desired for the path to site, and how long will it need to be from the main road?

Response:

VMGD is responsible for the upgrade of the access road from the main road to the radar site. The path to the weather radar site will be approximately 4 meters wide and 500 meters long.

**Question 32:**

Annex C Are the local contractors in the list provided approved by SPREP as prequalified or preferred suppliers/contractors?

Response:

The supplier may work with local contractors in the list provided or make arrangements with other preferred contractors.

**Question 33:**

Will SPREP be providing conditions of contract documentation - CoC (document reference. Ie FIDIC, AS etc.) for this project? Document refers to “SPREP Standard Contract Terms and Conditions are non-negotiable.”, but no CoC included in the document.

Response:

The draft SPREP contract template sample contains all the SPREP Standard Contract Terms and conditions.

**Question 34:**

Are there any Special Conditions of Contract to accompany CoC?

Response:

As above, none from the Technical Specification side.

**Question 35:**

Has a supervising engineer been appointed for the project (who manages the project for the client and certifies the work), if so, who?

Response:

Ms. Esther Saul, Manager, ICT and Engineering Division, Vanuatu Meteorology and Geo-Hazards Department will manage the project and certifies the work.

**Question 36:**

Please confirm the ownership status or control of the land where the site is located. If it has been purchased from the traditional owners, please confirm that the acquisition of the land has been completed/finalized including payments.

Response:

The site is located on Klems Hill area, Efate Island near Port Vila. The current ownership status of the land is "leased". The Government of Vanuatu is in the final stages of the land acquisition process to convert the ownership to "public land". The 5-step land acquisition process will complete in September 2023. A revised survey map for the title 12/0541/002 is being prepared by the Lands Survey Department.

**Question 37:**

Has the site land procured from traditional owners had a cadastral survey completed so the boundaries are identified?

Response:

The land survey plan will be available in September 2023.

**Question 38:**

Is the access road into the site a public road or a private road? If it is a private road, has the client made arrangements for use for construction of this new facility.

Response:

The access road to the weather radar site and existing telecommunication towers to the northeast, is a public road.

**Question 39:**

Is the access road into the adjacent site with telecom towers of sufficient capacity to carry the construction traffic into the radar site, or does it need upgrading? If so, what is the requirement/specification for the road improvements and associated drainage?

Response:



The Government of Vanuatu through the Public Works Department is responsible for the improvement of the access road to the weather radar site to ensure access is possible in all weather conditions. Road and drainage specifications are not available at this time.

**Question 40:**

What is the term of the contract? Or the required completion date?

**Response:**

The term of the contract will be at least a year (12 months from the date of contract signing). Contract to be completed before the tropical cyclone season if possible.

**Question 41:**

Vanuatu VAT zero certificate only until Dec 2023. Is this likely to be extended to match the project period?

**Response:**

The VAT zero certificate will be extended in January 2024 to match the project period.

**Question 42:**

Are goods for the project provided from overseas subject to VAT or import duty? I.e. Radar, radome, tower, equipment hut, electronics equipment, etc.

**Response:**

The Vanuatu Meteorology and Geo-hazards Department will facilitate import duty exception for project equipment brought into the country by the successful supplier. VMGD will require access to airway bill and relevant supporting documents prior to the arrival of the shipment into Vanuatu.

**Question 43:**

Where is the access point for the client WAN, ie is there a cabled network nearby which is to be patched into.

**Response:**

Access point for the client WAN is through the Government Broadband Network (GBN) and the GBN tower approximately 200 meters northeast from the radar site.

**Question 44:**

Where is the main power to be derived. I.e., are we able to connect into the power mains at the existing nearby tower infrastructure or is a new line to be run in from the nearest overhead power lines.

**Response:**

Power will be available on the weather radar site. VMGD is currently working with utility provider UNELCO to install new power lines to the radar site.

**Question 45:**

In addition to the below questions sent yesterday, we would also ask of the possibility of an extension of time to lodge the tender?



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Response:

This is not possible at this stage.