Public Works and Government Services Canada | Travaux publics et Services gouvernementaux Canada

RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:

Bid Receiving
PWGSC
33 City Centre Drive
Suite 480C
Mississauga
Ontario
L5B 2N5
Bid Fax: (905) 615-2095

SOLICITATION AMENDMENT
MODIFICATION DE L'INVITATION

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

Comments - Commentaires

Vendor/Firm Name and Address
Raison sociale et adresse du fournisseur/de l'entrepreneur

Issuing Office - Bureau de distribution
Public Works and Government Services Canada
Ontario Region
33 City Centre Drive
Suite 480
Mississauga
Ontario
L5B 2N5

Title - Sujet Compact Weather Stations	
Solicitation No. - N° de l'invitation K3D33-180856/A	**Amendment No. - N° modif.** 004
Client Reference No. - N° de référence du client K3D33-180856	**Date** 2018-01-11
GETS Reference No. - N° de référence de SEAG PW-$TOR-015-7428	
File No. - N° de dossier TOR-7-40112 (015)	**CCC No./N° CCC - FMS No./N° VME**
Solicitation Closes - L'invitation prend fin **at - à 02:00 PM** **on - le 2018-01-19**	**Time Zone** **Fuseau horaire** Eastern Standard Time EST
F.O.B. - F.A.B. **Plant-Usine:** ☐ **Destination:** ☑ **Other-Autre:** ☐	
Address Enquiries to: - Adresser toutes questions à: Abela, Aaron	**Buyer Id - Id de l'acheteur** tor015
Telephone No. - N° de téléphone (905) 615-2061 ( )	**FAX No. - N° de FAX** ( ) -
Destination - of Goods, Services, and Construction: **Destination - des biens, services et construction:**	

Instructions: See Herein

Instructions: Voir aux présentes

Delivery Required - Livraison exigée	**Delivery Offered - Livraison proposée**
Vendor/Firm Name and Address **Raison sociale et adresse du fournisseur/de l'entrepreneur** **Telephone No. - N° de téléphone** **Facsimile No. - N° de télécopieur**	
Name and title of person authorized to sign on behalf of Vendor/Firm (type or print) **Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)** **Signature** **Date**	

Canada

Solicitation Amendment No. 004 is being issued to address the following:

A) Question and Answer
B) Amend Annex B – Basis of Payment
C) Amend Annex A – Requirement
D) Amend Annex D – Evaluation Criteria

A) Question and Answer

Q1: Reference is made to Part 4 (Evaluation Procedures and Basis of Selection), Article 4.1.2 (Mandatory Financial Evaluation), Item 4.1.2.2, page 5, which states the following: “The price used in the evaluation will be in Canadian dollars, Applicable Taxes excluded, FOB Destination, Canadian customs duties and excise taxes excluded.” However, according to Annex B (Basis of Payment), Canadian customs duties and excise taxes are to be included in our pricing. We would appreciate receiving your confirmation as to whether Canadian customs duties and excise taxes need to be included in our pricing.

A1: Canadian customs duties and excise taxes are to be excluded. Annex B (Basis of Payment) has been amended. See below.

Q2: Reference is made to Annex “D” (Evaluation Criteria), Mandatory Technical Criteria, Article 1.1 (System Performance must include”), on page 18: Item 5 lists items 5-a to 5-f, but item 5-e seems to be missing from the list. We would appreciate receiving your clarification on the above

A2: Annex “D” (Evaluation Criteria), Mandatory Technical Criteria, Article 1.1 (System Performance must include”), on page 18: Item 5 has been revised. Please see below.

Q3: Reference is made to Annex “D” (Evaluation Criteria), Mandatory Technical Criteria, Article 1.1 (System Performance must include”), on page 19: Item number 11 seems to be missing from the table and there are two Items numbered 12. As such, we would like to suggest changing the first Item 12 to Item 11.

A3: Annex “D” (Evaluation Criteria), Mandatory Technical Criteria, Article 1.1 (System Performance must include”), on page 19 has been revised. Please see below.

Q4: Reference is made to Annex “D” (Evaluation Criteria), Mandatory Technical Criteria, Article 1.1 (System Performance must include”), on page 19, Item 12 (the first one), which states the following: “The station’s output must meet the range, resolution, and achievable uncertainty values as indicated in Annex E-Section 1.2.” We believe that there is an error in the referenced Annex, which should be Annex D instead of Annex E, as Annex E in the RFP document refers to Electronic Payment Instruments. We would appreciate receiving your confirmation of the same.

The same applies to Item 12 (the second one) listed in the same section.

A4: Annex “D” (Evaluation Criteria), Mandatory Technical Criteria, Article 1.1 (System Performance must include”), on page 19, Items 11 and 12 have been revised. Please see below.

Q5: Reference is made to Annex "A" (Requirement), Article 2. (Background), Page 12: For our better understanding of ECCC's requirements and adequate response, what datalogger model(s) will be used to poll the data from the CWSUs?

A5: Campbell Scientific CR800

Q6: Reference is made to Annex "A", Article 4.5(f), Page 13: Why is the mounting diameter only specific to 1 inch? Will you accept our standard mounting for the CWS that is suitable to a 2 inch diameter pole?

A6: ECCC's requirement for a pole size to a range of 25-30 mm remain unchanged. The vendor can provide an extra adaptor (2" to 1") if their CWS is suitable for a 2" pole.

Q7: Reference is made to Annex "A", Article 10, Page 13 (Equipped with a configurable serial interface...): Could ECCC explain with more details what communication protocols they will need from the CWSs?

As examples, the points below could be considered:
-- Will all the CWSs communicate using the same protocol?
-- Is RS-232 really wanted, as it is a mostly phased-out protocol in newer applications? In case it is, for how many CWSs?
-- Is there any given preference for the serial interfaces, for example RS-485 RTU vs. straight RS-485?

A7: We are using SDI-12 protocol in all of the Compact Weather Stations.

Q8: Reference is made to Annex "A", Article 11, Page 14: Please confirm that the configuration software tools required are only for the configuration of the CWS, in contrast to software required to poll data from the sensors, process the data, etc.

A8: configuration software tools required are only for the configuration of the CWS

Q9: Reference is made to Annex "A", Article 12, Page 14: Our offered CWS does not require any specialized tools for its installation, but only regular nut wrenches. As these are of usual presence in any toolset, please confirm if ECCC will actually need us to provide them or if they can be omitted from the requirement.

A9: ECCC will provide regular wrenches. Vendor must provide all specialized tools required for the installation.

Q10: Page 12, Section 4 Minimum Mandatory Specifications, paragraph 6 states "Must operate unattended operation (sic) for a minimum of one year.

While compact weather stations are designed to operate unattended for a minimum of one year, Canada's winter environment will challenge data availability due to rimed ice accumulating on the non-mechanical wind sensors' acoustic heads. To mitigate icing effects, heated sensors are typically recommended. Heating also prolongs the compact weather stations' operational life. As the units will be installed adjacent to radars whose sites likely have ample power, we recommend the Government add a heating requirement and adjust the corresponding power levels of the compact weather stations.

A10: ECCC agreed to increase the total power consumption from 40 Watt to 100 Watt.

Weather Station Unit must have an internal heater to mitigate icing effect.

Q11: Reference is made to your recent amendment #2 to the reference tender for Compact Weather Stations (CWS):

The amendment expresses the possible effects of bird presence as an absolute cause for failure of data acquisition. We are aware and we do agree that bird presence (perching, etc.) can indeed affect the measurements of a weather station in different ways, but the expression "data availability" seems to imply that in such cases the station becomes nonoperational and/or the data is lost altogether.

b) The amendment makes the "bird deterrent kit" a mandatory deliverable, whereas it is more an accessory that could be required in some but not all cases (as correctly stated in the original requirement). The amendment in fact is not accounting for instruments with designs that inherently prevent bird perching. That is in fact the case of our instrument, which by having no horizontal open surfaces for birds to rest on or narrow rims or appendages for them to perch, is designed to be inherently unattractive to birds.

Although we do agree that the term "bird spike kit" was suggestive of a specific vendor's product, based on the above considerations we are afraid that that the mentioned amendment #2 could in fact be less generic than the original requirement. To once again favor the presentation of optimal offers from diverse manufacturers, we therefore request ECCC to kindly revert the amendment or to restate the requirement 5(c) in such a way that instruments with a bird-presence preventive design are also considered compliant, and not only those with an added-on accessory.

A11: If the vendor demonstrates that their Weather Station's design is such that it prevents bird perching, there will be no need to have an external bird deterrent kit. See below for further details.

Q12: At Annex A – Requirements, Section 4. Minimum Mandatory Requirements

10. Equipped with a configurable serial interface to support SDI-12, RS-232, RS-485

    A) Can Canada please confirm that all 3 outputs must be available or just one or two of them? Canada should be aware that requiring all three may increase the cost of submissions as they will include possibly unnecessary parts since only one output is likely to be used.

    B) Can Canada please confirm if there is a preferred output?

    C) Can Canada please confirm that if additional hardware is required to support a specific output (ie RS232), whether it should be included as part of each compact weather station?

    D) Can Canada please confirm whether a piece of hardware required to configure the CWS, but not required after configuration needs to be included with each CWS or only a set number (1 or 2 or x) for all 40 CWS?

A12: A, B, and C - ECCC amended item 10 of the mandatory requirement. Weather Station only needs to support SDI-12 serial interface.

D – 10 pieces of hardware to configure the CWS will be sufficient.

Q13: At Annex A – Requirements, Section 4. Minimum Mandatory Requirements
12. – All the accessories, tools and fixtures requires for the installation and dismounting/remounting of the equipment must be supplied with each of the complete Compact Weather Station Units.

A) Can Canada please confirm that if only common, off the shelf tools are required, ie 9/16 wrench that these do ***not*** need to be included with each CWS?

A13: ECCC will provide regular wrenches. Vendor must provide all specialized tools required for the installation.

B) At Annex B – Basis of Payment

Delete: All inclusive, firm unit prices in Canadian funds, transportation included, FOB destination, Canadian Customs duties and excise taxes included. GST/HST extra if applicable.

Insert: All inclusive, firm unit prices in Canadian funds, transportation included, FOB destination, Canadian Customs duties and excise taxes excluded. GST/HST extra if applicable.

C) At Annex A –Requirement
Delete in its entirety;

Insert:

1. Objective

Environment Canada and Climate Change (ECCC) is planning to acquire a quantity of forty (40) Compact Weather Station Units (CWSU). ECCC will install these CWSU across Canada by the end of 2023 as the part of Canadian Weather Radar Replacement program (CWRRP). Each of the CWSU units must meet the entire mandatory requirement listed in Annex A.

1.2 Glossary

ECCC: Environment Canada and Climate Change
CWRRP: Canadian Weather Radar Replacement program
CWSU: Compact Weather Station Unit
FTP: File Transfer Protocol

2. Background

ECCC is installing new S-Band Weather Radar Systems across Canada. The new S-Band Radar Systems are to replace ECCC's currently operational C-Band weather radar network. This replacement will improve the up-time, network sustainability, radar coverage, data quality, and life cycle management. Each radar site will be equipped with a CWSU in order to report the site's weather condition. The CWSU shall report temperature, humidity, pressure, wind speed, wind direction, precipitation occurrence and precipitation type. The CWSU will be configured to report the weather data as a text string to a Datalogger at the end of radar volume scan. Datalogger will "FTP" the data to a local computer.

3. Deliverables

Quantity of forty (40) complete Compact Weather Station Units, which includes:

- Compact Weather station
- 10 meters (30 ‘) data/power cable
- Mounting adaptor
- Bird deterrent
- Lightning protection
- Configuration Software Utility
- Technical Documentation including but not limited to User’s Manual, Installation, troubleshooting.
- One year of OEM parts and labour warranty
- Compact Weather Station must be commercially available and operationally proven.

4. Minimum Mandatory Specifications

Each complete Compact Weather Station Unit must meet each of the following criteria below:

1. CWSU must operate between -50°C to +60°C inclusively
2. Must have no moving parts
3. CWSU must weigh less than 2 Kilograms (4.4 pounds)
4. The largest cross section must not exceed 0.1 m^2
5. Each compact weather station unit must include:
    5(a) A Compact Weather station
    5(b) Minimum of 10 meters (30 ‘) data/power cable
    5(c) Bird deterrent kit is required to maximize data availability – If the vendor demonstrates that their Weather Station’s design is such that it prevents bird perching, there will be no need to have an external one.
    5(d) Lightning protection
    5(e) Technical Documentation
    5(f) Adaptor to mount to a range of 25-30 mm (0.98-1.18”) vertically oriented pole

6. Must operate unattended operation for a minimum of one year

7. The Weather station must have the measurement report, resolution, and achievable uncertainty values, and range parameters as specified in Annex A - Table 1

Table 1

Item	Sensor	Minimum Range	Minimum Reported Resolution	Minimum Achievable measurement uncertainty	
12	Temperature	-50C to 60°C	0.1 °C	±0.5 °C	
13	Humidity	0 to 100%	0.1%	±5 %	
14	Wind Speed	0.1 – 60 m/s	0.5 m/s	±0.5 m/s for ≤ 5 m/s	

				10% for > 5 m/s	
15	Wind Direction	0 – 359°	1°	±5°	
16	Pressure	600 – 1 080 hPa	0.1 hPa	±0.5 hPa	
17	Precipitation Amount (daily)	0 – 500 mm	0.2 mm	±5%	
18	Precipitation (rain) intensity	0.02 to 200 mm/h	0.1 mm/h	N/A	

8. Weather station's text string data output must be configurable from 1 to 3600 seconds inclusively.

9. Must work with a single 12Vpower supply – total power consumption must be less than 100 watts

10. Equipped with a serial interface to support SDI-12.

11. Weather station unit must equipped with configuration software tools
12. All the accessories, tools and fixtures required for the installation and dismounting / remounting of the equipment must be supplied with the each of the complete Compact Weather Station units.

13. Weather Station Unit must have an internal heater to mitigate icing effect.

D) At Annex D – Evaluation Criteria

Delete in its entirety;

Insert:

Mandatory Technical Criteria

Bidders must demonstrate meeting every mandatory criteria below by providing proof in their bids. Simply stating that the mandatory technical criteria is met or complied with is not sufficient. Failure to demonstrate meeting any of the mandatory criteria will result in the bid being deemed non-responsive.

Deliverable: The complete Compact Weather Station Unit must meet each of the specifications outlined below:

1.1 System Performance must include:

Specifications		
Item	**Description**	**Identify where the supporting documentation is located in the bid package (section and page number(s))**
1	CWSU must operate between -50°C to +60°C inclusively	
2	Must have no moving parts	
3	CWSU must weigh less than 2 Kilograms (4.4 pounds)	
4	The largest cross section must not exceed 0.1 m^2	
5	Each compact weather station unit must include:	
5-a	A Compact Weather station	
5-b	Minimum of 10 meters (30 ‘) data/power cable	
5-c	Bird deterrent kit is required to maximize data availability – If the vendor demonstrates that their Weather Station’s design is such that it prevents bird perching, there will be no need to have an external one.	
5-d	Lightning protection	
5-e	Technical Documentation	
5-f	Adaptor to mount to a range of 25-30 mm (0.98-1.18”) vertically oriented pole	
6	Must operate unattended operation for a minimum of one year	
7	Weather station’s text string data output must be configurable from 1 to 3600 seconds inclusively.	
8	Must work with a single 12V power supply – total power consumption must be less than 100 watts	

9	Must be equipped with a serial interface to support SDI-12	
10	Weather station unit must equipped with configuration software tools	
11	The station's output must meet the range, resolution, and achievable uncertainty values as indicated in Annex D-Section 1.2.	
12	The Weather station must have the measurement report, resolution, and achievable uncertainty values, and range parameters as specified in Annex E-Evaluation Criteria, Section 1.2 at Table 1.	
13	Weather Station Unit must have an internal heater to mitigate icing effect	

1.2 Sensor Performance Specifications must include:
Each complete Compact Weather Station Unit must meet the following range, resolution, and achievable uncertainty value specifications items below:

Table 1

Item	Sensor	Minimum Range	Minimum Reported Resolution	Minimum Achievable measurement uncertainty	Identify where the supporting documentation is located in the bid package (section and page number(s))
12	Temperature	-50C to 60°C	0.1 °C	±0.5 °C	
13	Humidity	0 to 100%	0.1%	±5 %	
14	Wind Speed	0.1 – 60 m/s	0.5 m/s	±0.5 m/s for ≤ 5 m/s 10% for > 5 m/s	
15	Wind Direction	0 – 359°	1°	±5°	
16	Pressure	600 – 1 080 hPa	0.1 hPa	±0.5 hPa	
17	Precipitation Amount (daily)	0 – 500 mm	0.2 mm	±5%	

18	Precipitation (rain) intensity	0.02 to 200 mm/h	0.1 mm/h	N/A	

Point Rated Technical Criteria

1. Rating Table (Total Maximum points available is: 75 points) – No Minimum Point Rating

Bids deemed responsive against all mandatory technical criteria will be evaluated against the following point rated technical criteria.

A. Additional Sensor Range and Integration (Maximum 75 points)

Point Rated Technical Evaluation Criteria		**Maximum points available for each criteria:**
1. Extended warranty	Award 10 points per year of extra warranty up to a ceiling score of 20 points e.g. 1 year x 10 points = 10 points	20
2. Additional integrated sensor	Award 10 points for additional integrated sensor up to a ceiling of 20 points e.g. if a weather station has an additional solar radiation sensor will get 1 x 10 points = 10 points	20
3. Sensor range	Award 1 points per extended range unit up to a ceiling score of 5 points per sensor e.g. a sensor with a temperature range of -55C to +60C will get 5 x 1 points = 5 points	35
		Total Maximum points available: 75