RETURN BIDS TO:
Parks Canada Agency Bid Receiving Unit
National Contracting Services
Bid Fax: 1-877-558-2349
Bid E-mail Address:
soumissionsest-bidseast@pc.gc.ca

This is the only acceptable email address for responses to the bid solicitation. Bids submitted by email directly to the Contracting Authority or to any other email address will not be accepted.

The maximum email file size is 15 megabytes. The Parks Canada Agency (PCA) is not responsible for any transmission errors. Emails with links to bid documents will not be accepted.

REVISION 001 TO A REQUEST FOR PROPOSAL

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

Issuing Office:
Parks Canada Agency
National Contracting Services
Cornwall, ON

Title: Avalanche Forecasting System Replacement	
Solicitation No.: 5P047-23-0067/A	**Date:** January 15, 2024
Amendment No.: 001	
Client Reference No.: N/A	

Solicitation Closes: **At:** 2:00 PM **On: January 23, 2024**	**Time Zone:** Eastern Standard Time (EST)

F.O.B.: Plant: ☐   Destination: ☒   Other: ☐
Address Enquiries to: Christine Lajoie
Email Address: **Telephone No.:** christine.lajoie@pc.gc.ca   343-585-2762
Destination of Goods, Services, and Construction: Parks Canada P.O. Box 350, 301B - 3rd Street West Revelstoke, BC V0E 2S0

TO BE COMPLETED BY THE BIDDER

Vendor/ Firm Name:	
Address:	
Telephone No.:	**Email Address:**
Name of person authorized to sign on behalf of the Vendor/ Firm (type or print):	
Signature:	**Date:**

Solicitation No.:	Amendment No.:	Contracting Authority:
5P047-23-0067/A	001	Christine Lajoie

Client Reference No.:	Title:
N/A	Avalanche Forecasting System Replacement

Amendment 001

This amendment is raised to:

A. Extend the solicitation closing date
B. Distribute information from the Bidders' Conference held on January 3, 2024
C. Answer questions from bidders
D. Make changes to the tender documents

A.   Solicitation Closing Date

The closing date for solicitation 5P047-23-0067/A, titled "Avalanche Forecasting System Replacement", is extended from January 16, 2024 until **January 23, 2024.**

If you have already submitted your proposal, you are invited to send us your revisions, where necessary, by fax / email to 1-877-558-2349 / soumissionsest-bidseast@pc.gc.ca. Please indicate the solicitation number on all correspondence.

B.   Bidders' Conference Information

1.   Bidders' Conference Attendees

Vendor	Representative's Name
InfoMagnetics Technologies Corporation	Jason Rosenthal
InfoMagnetics Technologies Corporation	Bob Malenko
Wyssen Canada Inc. (Wyssen)	Dylan Chen
Wyssen Canada Inc. (Wyssen)	Walter Steinkogler
Wyssen Canada Inc. (Wyssen)	Lukas Zaugg
Snowbound Solutions LLC	Scott Havens

Contact information for the attendees are available upon request and approval from the vendors.

2.   General Information

An overview of the technical requirement was provided. Bidders had the opportunity to ask questions. Questions and answers are included below.

C.   Questions and Answers

Q1:   Further definition of the expectations of minimal viable product.
A1:   Minimum Viable Product (MVP) is a subset of the capabilities listed in the System Capabilities Excel document. Our current definition of the MVP will be shared as an Excel document, a copy of the Systems Capabilities Excel document. We can be flexible and work with the vendor to negotiate the MVP requirements. The main goal of the MVP is to connect weather data and graphs, to record avalanche paths and occurrences, and to have the capability to enter manual observations.

Q2:   Further explanation of ITSG-33 "Lifecycle approach".
a.   What technical requirements do we need to comply to?
b.   How does Parks Canada make sure vendor meets ITSG-33 requirements?
A2:   Any system that goes live into production needs to undergo an IT security assessment. This will lead to an Authority to Operate (ATO) certificate which is required before going into production. In the security approach, first the system and the data are categorized by Parks Canada's IT

Solicitation No.:	Amendment No.:	Contracting Authority:
5P047-23-0067/A	001	Christine Lajoie

Client Reference No.:	Title:
N/A	Avalanche Forecasting System Replacement

Security team. This has been done already. Please note that the data has been categorized as Unclassified. Following that, the IT Security team creates a list of security controls (~ 70 controls in this case). Some of these are operational and need to be addressed by Parks Canada; some are technical and need to be addressed by the vendor. The vendor will work with Parks Canada to provide evidence, where applicable, to assess the extent to which the controls have been implemented. For instance, the system must provide role-based access control. An attempt will be made to close all the gaps in the implementation of the security controls. Once the evidence has been collected, the IT Security team will determine residual risk and authorize the system if the risk is acceptable.

Q3: **Expected SLA figures (downtime, MTTR etc).**
What's the response time for issues?

A3: For critical issues (unable to connect and/or display weather telemetry data), the support should be provided seven days a week via a phone and/or email between 07-16 Pacific Standard Time. For critical issues, a response should be provided within an hour and resolution within four hours. For non-critical issues, reaching support during weekdays, during business hours, would suffice. Response should be provided within 24 h and resolution should be reached within three business days. Outside of the avalanche season, support could be relaxed to weekdays only and all issues could be treated as non-critical.

From an architectural point of view, connectivity to the service by the users will be required at least 99.9 % of the time during the avalanche operational season. Scheduled maintenance should take place outside of business hours. In the summer, this number can be reduced but the system should not be out for maintenance for more than two days in a row.

Q4: **C1 – is it acceptable to have online and offline backups outside of Canada?**
A4: Yes, data residency is not mandatory.

Q5: **C1 – is it acceptable to have other customers data on the same Canadian environment?**
A5: Yes, that would be fine. It is unclassified data and the security risk in terms of data is low.

Q6: **Define the desired capabilities of the "User". For example, Capability C10. Does the Parks "User" need the ability to manage this on their own or is it appropriate for the Bidder to manage this capability upon the request of a Parks "User".**
A6: Yes, Parks Canada would need the capability to do it ourselves.

Q7: **C7 – Further clarification needed.**
A7: The requirements for accessibility at GoC is increasing, and standards are becoming stricter. New requirements are coming soon, and we expect to have to meet them. The interface of the new system will be expected to meet WCAG 2.1 accessibility requirements such as having sufficient color contrast, legible text, etc. The details are listed in the GoC Accessibility Standards link provided. In practice, Parks Canada will conduct an accessibility audit and produce a report on the vendor's system. Following that, Parks Canada will work with the vendor to close the gaps identified by the report. This is an iterative process. Not everything will need to be all done at day one. We will work with the vendor on getting issues addressed until the system is compliant. The most challenging parts of this may be related to maps as map colors and symbols may not be possible to change in a given system. If not possible, an alternative is to provide the same data in a table format, or some similar text-based format.

Q8: **C23 - Define frequency and the intended use of this capability. Is this asking for alert blasts at predefined times of day? How does this differ from item C24.**
A8: In the current system for the alerts, we can set parameters such as when the alert is active and get an alert by phone for instance when snow has accumulated a lot over a specific period of time. In the replacement system, an email or SMS alert is fine. The alerts should be possible to

Solicitation No.:	Amendment No.:	Contracting Authority:
5P047-23-0067/A	001	Christine Lajoie

Client Reference No.:	Title:
N/A	Avalanche Forecasting System Replacement

configure and enable for off hours when the staff is not at work. Different staff members should be able to set their own alerts. There is no need to have alert chains or acknowledgment of receipt of the alert. The system should have the capability to determine the time interval, or frequency, at which the alert condition, such as snow accumulation at a specific weather station, is checked. To use an example on why this matters, there is a significant difference between checking for average wind speed within one hour compared to max wind speed over a three-hour period.

Q9: **C26 - Can the bidder's software simply export data in a usable file format for a Parks user to import into an external tool such as Power BI or do you require more integration of a third-party tool or creation of proprietary tool?**

A9: We do not necessarily need a live connection to the vendor's data from Power BI. If we need reports, we can work with data extracts such as CSV files produced on a regular interval. We would work with the vendor to define schedules and other details for the extracted datasets. The vendor does not need to build a proprietary reporting tool: Power BI is the standard tool used at Parks Canada

Q10: **C37 - Can this be achieved with open-source integration of existing products such as Niviz or Snowplot.**

A10: It technically could be, but the snowplot provided by AFS is unique to Parks Canada in Glacier National Park. We want exactly the same thing. These tools may produce a snowplot that is different. They may not be able to produce a ram profile for resistance, for instance.

Q11: **For something hosted in the cloud, does this need to be in the government cloud or public cloud environment.**

A11: It can be in the public cloud environment such as Azure or AWS. (Must be in Canada).

Q12: **How many weather stations are you managing right now?**

A12: There are ten stations currently, with the possibility of more. The weather stations are connected to a base station in Rogers Pass by VHF. There are no weather stations that are connected to the internet.

Q13: **Are you eliminating the Voice enabled response. (Interactive voice response card) Will Parks Canada use Text or emails to notify the forecaster?**

A13: Different users can determine the type of alerts they require. But text or email notifications are sufficient.

Q14: **Are you going to require "density" on the snow profiles?**

A14: Yes.

Q15: **Is this a fixed cost contract?**

A15: Yes, this is a fixed, all-inclusive cost contract.

Q16: **What is the cost for the cloud environment?**

A16: The bid prices are all inclusive. Any costs relating to cloud environment, either within the initial system implementation period or during any of the optional maintenance and support periods, must be included in the total bid prices.

Q17: **Is the system going to be accessible through desktops as well as mobile devices and tablets?**

A17: Yes.

Q18: **Further explanation of C5- The system features a translation tool for translating static interface labels.**

A18: The system must be available in English and French. Parks Canada can do most of the translations – the vendor does not need to do that – but there must be a language switcher in the system. Perhaps you have a web front-end that has static interface labels such as column headers. We need to be able to translate the static labels and you must provide a tool that can find and translate the static labels. Ideally, the tool would be able to tell which labels still require translation. When a translation is missing, the system should default to the English label. Then there is dynamic data such as free text content entered by staff. The translation tool obviously cannot address the translation of this content. Instead, the system must provide a box for the user to enter the English text and a box for the French text should they choose to do so.

Q19: Are you still doing snow pole / avalanche sensor data?
A19: We have a separate system for avalanche sensors but are still using snow poles for data collection.

Q20: Are the graphs still needed for Critical Reference Lines?
A20: Yes, we do still need to visualize the reference lines in graphs. See capability C13.

Q21: The current graphic system allows you to come up with your own custom graphs as well as the ability to share with your colleagues?
A21: Yes. See capability C16.

Q22: For the migration, has the legacy data ever changed or has it been pretty much the same since 2010?
A22: Nothing has changed since 2010. It is fairly simple data but there is a lot of it. Parks Canada will make sure the vendor has all of the information and support provided to them to help with the migration. It is mostly text and numbers. There are only a few photos.

D. Tender Package/ Solicitation Revisions

D.1. Appendix 1 – System Capabilities

Appendix 1: System Capabilities has been revised and is included as file name: ***System Capabilities-Capacités du système_v2***. A summary of changes are listed below:

1. **C1:** The Data residency requirement is no longer mandatory. The word (MANDATORY) was removed.
2. **C31:**
   Deleted: "Users can enter their daily snowpack observations, written on paper notebooks, to the system. Users can record information on snow profiles in accordance to industry standard (Observation Guidelines & Recording Standards (OGRS))."
   Replaced with: "Users can enter their daily observations, written on paper notebooks, to the system. Users can record information on snow and weather in accordance to industry standard (Observation Guidelines & Recording Standards (OGRS))."

D.2. Appendix 2 – System Capabilities – Minimum Viable Product (MVP)

New document provided. The document's name is: ***System Capabilities-Capacités du système_Minimum.*** This document identifies capabilities listed as Minimum Viable Product (MVP).

Solicitation No.:	Amendment No.:	Contracting Authority:
5P047-23-0067/A	001	Christine Lajoie

Client Reference No.:	Title:	
N/A	Avalanche Forecasting System Replacement	

D.3.   Appendix 3 – Avalanche Forecasting System screenshots

New document provided. The document's name is: **System Screenshots-Captures écran du système.** This document provides screenshots from the current Avalanche Forecasting System. The screenshots are only available in English because there is no French interface in the system.

ALL OTHER TERMS & CONDITIONS REMAIN UNCHANGED.