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Parks Canada Agency Bid Receiving Unit
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220 - 4 Avenue S.E., suite 720
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**REVISION 001 TO A
INVITATION TO TENDER**

**RÉVISION 001 À UNE
INVITATION À SOUMISSIIONER
DEMANDE D'OFFRES À
COMMANDES**

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

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

Issuing Office - Bureau de distribution :

Parks Canada Agency
National Contracting Services
220 - 4 Avenue S.E., suite 720
Calgary, AB T2G 4X3

Title - Sujet : Ya Ha Tinda Ranch Solar Photovolataics Microgrid – Banff National Park	
Solicitation No. - N° de l'invitation : 5P420-20-0364/A	Date : February 19, 2021
Amendment No. - N° de modification : 001	
Client Reference No. - N° de référence du client :	
GETS Reference No. N° de reference de SEAG : PW-21-00944041	
Solicitation Closes - L'invitation prend fin : At - à : 2 :00 PM On - le : February 25, 2021	Time Zone - Fuseau horaire MST - HNR
F.O.B. - F.A.B. : Plant - Usine : <input type="checkbox"/> Destination : <input checked="" type="checkbox"/> Other - Autre : <input type="checkbox"/>	
Address Enquiries to - Adresser toutes demande de renseignements à : Rebecca Chen	
Telephone No. - N° de telephone : (587) 439-3529	Fax No. -N° de télécopieur : (866) 246-6893
Email Address – Courriel : rebecca.chen2@canada.ca	
Destination of Goods, Services, and Construction - Destination des biens, services, et construction : See Herein – Voir ici	
TO BE COMPLETED BY THE BIDDER - À REMPLIR PAR LE SOUMISSIONNAIRE	
Vendor/ Firm Name - Nom du fournisseur/ de l'entrepreneur :	
Address - Adresse :	
Telephone No. - N° de telephone :	Fax No. - N° de télécopieur :
Name of person authorized to sign on behalf of the Vendor/Firm Nom de la personne autorisée a signer au nom du fournisseur/ de l'entrepreneur	
Signature :	Date :

Amendment 001

This amendment is being raised to extend the solicitation closing date, distribute information from the optional bidders' teleconference, questions and answers and make changes to the tender documents.

A. Bid Closing Date

The closing date for tender 5P420-20-0364/A is extended from February 23, 2021 to **February 25, 2021 at 2:00PM Mountain Standard Time (MST)**.

B. Bidders' Teleconference Information

1. Attendees

Vendor	Representative's Name
Smart Era Lighting Systems	Frank Hopkins
Timcon Construction	Kyle Abel
EVOLVsolar	Mike Daciw Jefte Li
Amray Solar	Gary Chen
Kuby Energy	Adam Yereniuk
CBI Solar	Mark Whittaker
Empower Energy	Josh Persaud
Alta Pro	David DeBruin David Cook
Stace	Laurance Gauthier

2. Meeting Minutes

Rebecca Chen (Contracting Officer)

Overview of Request for Proposal (RFP) solicitation document:

- Bid security requirements
- Weighted evaluation at 70% for technical (60% pass mark), and 30% for price.
- Must bid on entire project work to be considered compliant. If you are a supplier, best to work with other companies bidding on entire project.
- Technical Submission:
 - o Submission requirements overview – page 22
 - Category 1 Design-Build Capability and Experience (Max. 40 Points)
 - Category 2 Understanding the Project (Max. 40 Points)
 - Category 3 Work Breakdown Structure and Schedule (Max. 20 Points)

- Mandatory Submission Requirement: include the installer's certification with submission – page 23
- Annex A: Team Identification Format to be submitted – page 24
- Annex B: Declaration Form to be submitted – page 25
- Price Submission
 - Annex C: Bid Price Form – page 27
- Pages 29 to 70 – overview of terms and conditions of contract for review;
- Page 71 – Annex E: Project brief attached separately
- The following can be submitted or requested after bid closing
 - Annex F – Attestation Form – page 72
 - Annex G – Integrity Provisions – page 74
 - Annex I - Certificate of Insurance – page 76

Meghan Pollock (Project Manager Project Delivery Services West) – based in Banff

Introduction to Project and Design build RFP:

- Banff National Park of Canada – Ya Ha Tinda Ranch approx. 85 km West of Sundre, AB via forestry trunk road 40, and other range and township roads. Working horse ranch with houses, barns, storage buildings, and a Quonset. Private property managed and run by Banff National Park.
- Scope of this RFP includes: Design build contractor to design, supply and install a solar PV array system, with inverters, chargers, and battery banks housed in a storage shed, and provide connection to existing generator units with automatic transfer switch.
- Supply off-grid power to all buildings at the Ya Ha Tinda Ranch.
- Current power generation at the Ranch is supplied by two diesel-fired Generators retained to provide reliable power in times of low solar radiation.
- Target kW rating of the system is 35 kW.
- Design proposals to meet the demands at the Ranch.
- Refer further to Terms of Reference re: Scope of Work.
- Design standards and reference in relation to Electrical Codes, certification by Solar Installer.
- Area of install, referenced in the Appendices – location provided in photos – trees in the area, we have cleared trees; it is an open area now. Contract does include work to remove tree stumps – grubbing in advance of installing.
- Schedule: tight schedule due to government funding requirements by end of fiscal year by end of March 2021. Ideally would like to design and procure as much as feasible for the project by end of March 2021.
- As much designed and procured and delivered to site by March 31. Construction will be performed in the Spring in more suitable weather conditions.
- Understand that the site is isolated. No grid power. Very limited telephone access. Site is in the foothills of the mountains. Isolated site, 1 hour West of Sundre.

Kelly Murray (Impact Assessment officer and Environmental Surveillance officer) – based in Banff

Reference to Impact Assessment documents:

- Environmental Protection is responsibility of the Prime Contractor
 - Refer to two documents in appendices – the Pre-approved routine impact assessment for front-country areas, and the additional mitigations specific for the project.
 - Consider the mitigations as part of your bid. Key aspect: is to protect cultural resources – rich history at that site.
 - Disregard tree removal portion of mitigations – not required by contractor; being completed by PCA.
-

- Bring group attention to the two documents. Environmental protection is the responsibility of the contractor.
- Cultural resources requirement – no disturbance to the ground shall occur, until the archaeologists have completed their shovel test and archaeological impact assessments in the area where grubbing and solar array and other infrastructure install to occur. This should be considered when planning the schedule.

3. Questions & Answers

Q1 Size and type of storage requirements – it would be advantageous for you to dictate size of storage in terms of leveling the bid. Yes, identified 3 days of autonomy – however, could create large bid swings – without levelling the size and type of storage for the design-build bidders. Set a storage size and type, whether Lead-acid or Lithium?

A1 Results of confirmation with PCA electricians and their recommendations:

We would like to run Lithium batteries as they charge quicker and have more cycles. In order to run Lithium batteries the building would have to be above freezing at all times, so adequate heat shall be provided in design. It is the preference to have building be heated by propane – contractor is responsible for the supply and install of propane tanks, connections, and propane heaters within the contract – sized to adequate capacity to meet the design intent.

An acceptable alternative to a pre-engineered building for housing the battery banks is a sea-can – if adequate consideration for aesthetics to the character of the Ranch are considered in the design phase; and if sufficient design capability for providing access to the battery storage compartment, and providing weather-proofing, and heating, are incorporated into the design.

Five (5) years (2011-2016) of demand data is attached, for power usage at the Ranch. The design-build contractor can design the size based on power demands and for the 3 days' of energy storage, or energy autonomy, during the spring, summer, and fall months (i.e. from April through September).

The size design is left to designers – to identify and design for the issues that should be addressed to ensure that capacity is there. The system should be designed to operate 12 months out of the year. Batteries should be able to withstand some temperature variations with the weather experienced at the Ranch, inside the facility in which they are installed – in terms of staying warm at sufficient operating level.

Isolated site and will take time to respond – i.e. site has an electrical response time from ~ 3 hours away in Banff. People on-site that manage the site are not electricians.

It is up to designers – to determine what is the best application out there given where it is and what we're trying to do and the power requirement that we are asking for.

Q2 Any requirement to have remote visibility of the asset – i.e. to manage or operate the asset remotely?

A2 After verification with field unit electricians, and in consultation with Parks IT systems at the Ranch, the following recommendations:

No need for systems to have remote visibility at this time, i.e. it is not a contract requirement. Ideally, the system should be designed to allow for this expanded capability (remote visibility) at a future date (outside this contract), if/when the IT infrastructure at the Ranch is upgraded in future to provide for both send and receive capability. Given the current internet and IT infrastructure at the Ranch, the system would only be able to send out data in real time; not receive, at present. May be considered at a future date if IT infrastructure upgrades.

- Q3** Are pictures available of the area of trees cut down – to quantify area requirement of grubbing?
A3 See attached photos of existing tree clearing completed. Note the area is as identified in the Terms of Reference – no greater than 1.0 acre of trees have been cleared. Grubbing area to remove tree stumps would be only in the immediate vicinity of the solar installations, or as required.
- Q4** For the two-part proposal, do you prefer to have them in separate documents – or combined together, how submitted?
A4 See instructions in the RFP document. Can either send them as two separate pdfs attachments – one for technical proposal, one for price proposal. Or two separate emails.
- Q5** Do you have specifications on existing equipment / infrastructure (details SLD, spec sheets or model numbers)?
A5 Some information already supplied in attachments – e.g. as built operations and maintenance drawing of installed fuel tanks. See attached spec sheet for primary redundant existing diesel generator, installed 2019. Note, the secondary redundant generator installed in 2011, is for practical purposes, the same generator spec.
- Q6** Lodging / LOA, and Bathroom facilities available for use on site?
A6 Facilities on-site are for exclusive use of Parks Canada personnel and researchers. Lodgings on Ranch not available to contractors.

Possible lodging – Bighorn campground operated by Friends of the Eastern Slopes – this may be available; inquire with community group. Other lodgings found off-site, or in Sundre, AB.

Bathroom facilities must be supplied by contractors as well – contractor to supply and maintain sufficient portable toilet facilities at the Ranch for use by contractor personnel.

C. Additional Questions & Answers (Received Post-Bidders' Teleconference)

- Q7** Is there a normal road for trucks to get into location?
A7 Yes. A series of paved and gravel Range, Township, and Forestry Trunk roads provide access from Sundre, AB to the gates of Ya Ha Tinda Ranch. From the gates, a private gravel access road (Ya Ha Tinda Road) travels West past the Bighorn Campground, and provides direct access to the Ranch buildings, and the work area. Private gravel access road 7km distance.
- Q8** What is both generator specs on site for this project.
A8 Refer to A5 – and see attached spec sheet for primary redundant existing diesel generator.
- Q9** Is the objective to remove the generators or minimize their usage?
A9 Generators shall be kept for back-up power. Expected result is to minimize generator usage in summer, and as much of the shoulder-seasons as feasible.
- Q10** How many days' Autonomy do you want with your micro-grid?
A10 Refer to RFP documents. 3-days' energy storage, or 3-days' of energy autonomy – in spring, summer, and fall months (i.e. from April through September).
- Q11** In the RFP you ask for the solar cells to be mounted on a skid this would require over 37 meters of skid, this would require 3 cranes to lift it onto piles later. I would hope that we could put the piles in now and build the solar racking right on them and no need to do it later.
A11 No work involving ground disturbance is permitted prior to the completion of an archaeological impact assessment (AIA) including shovel-testing program. This is scheduled for May-June 2021. In-ground work, such as piles, is permitted only after the confirmation of location and methodology; as to be verified by Parks Canada archaeologists.

Thus the direction proposed for skid-mount initially to protect and partially-mount the arrays; then later a piled, anchored, or ballast-mounted foundation for a more permanent solution, once ground work is permitted after the AIA is complete.

Q12 For heat in the battery storage building do you want electric propane or diesel?

A12 Ideally heat provided by electric propane heater. Note that though propane tanks are available as fuel on-site, these are located a fair distance from proposed installation, between houses; and a cultural resource impact assessment would be required in any area proposed to be trenched. Instead, Design-Build Contractor to propose, and supply and install tanks, connections, and heater required for a propane-heating solution, installed in proposed location of battery-storage building. As outlined in Terms of Reference, building envelope design to also provide insulation and protection from elements – to reduce heat-loss from the battery storage compartments.

Q13 Battery type: Does PCA have a preference for battery type, lead vs lithium, for the proposal to be based on?

A13 Refer to A1 above.

Q14 The load calculations are from 2016 have there been any changes since then?

A14 Only significant change since 2016 is addition of generator building and replacement of fuel tanks to current location. Therefore, additional power draw includes new fuel pump installed 2019, and new lighting requirements in the vicinity of generator building.

Refer to attached BGIS Energy & Facilities Solutions Ya Ha Tinda Ranch Fuel System Replacement 2020 – Operations and Maintenance Manual (sections applicable) and/or Electrical Equipment Submittals.

Q15 We were wondering if you have any flexibility with the March 31st milestone for material delivery on site?

A15 No. Reference: Annex E, Terms of Reference, Section PA 1.6 – Project Schedule; the following provides clarification:

.5 .c Procurement and Delivery of Materials – shall be updated to reflect 31st March 2021.

Time is of the essence in this contract, for the supply and delivery of materials to the site by the end of the government fiscal year; in order to progress sufficient payment to the contract on schedule.

Q16 In the technical documents it shows the Total KWHR but not the Demand what is the max demand on these facilities?

A16 In Attachments to Annex E, Terms of Reference – Appendix 6 – a power analysis by fluke meter readings for 2 weeks in Feb 2018 was supplied.

Maximum power demand of the facilities should be determined by contractor from the combination of data supplied.

Q17 Additionally, do you have anyone on-site- at the Ya Ha Tinda Ranch who could provide us with more in-depth photos? Allowing us to see the voltage and amperage ratings on all electrical equipment (disconnects, splitters, distribution panels etc.). If you had a single line diagram - that would be preferred; however, due to the time constraints, if you do not, that is fine for now.

A17 See attached photos of electrical equipment. Also see attached BGIS Energy & Facilities Solutions Ya Ha Tinda Ranch Fuel System Replacement 2020 – Operations and Maintenance Manual (sections applicable for Electrical Equipment Submittals). As well, please find attached the Ya Ha Tinda Ranch Electrical Assessment Report, prepared for Parks Canada c/o EGE Engineering Ltd. by Allnorth Consultants Limited; December 20, 2017. *Note report produced prior to the supply and install of a new generator in 2019; and prior to installation of new fuel tanks and generator building. The report is recommended as reference for electrical loads on distribution panels. Finally, a

building energy audit summary completed in 2018 at the Ya Ha Tinda Ranch is attached, for reference.

Q18 With regards to the RFQ do you have a specified Battery type you want to see installed to make the bidding process easier from a comparison standpoint ? There are lot of options so the warranty, size and maintenance is going to reflect the final price significantly.

A18 Please refer to A1.

Q19 Has the load profile changed and if so what has been added since the report that was complete 5 years ago (2016)?

A19 Please refer to A14.

Q20 Will costs for bird study due to tree removal still be required by contractor if they are cleared before by your office?

A20 1.0-acre of Tree clearing work is being completed at present by Parks Canada Agency. Contractor required to coordinate with Parks Canada Environmental Surveillance Officer (ESO) prior to commencing the grubbing and ground-disturbance work – to allow ESO to complete a ground sweep looking for ground-nesting birds. Refer to Additional Mitigation Measures, Appendix 4; for further information.

If at a later date, further large-tree clearing is deemed required – this would follow a contract amendment process – as tree clearing is outside the contract terms at present. Appendix 4 Additional Mitigation Measures would apply in this scenario as well; and that activity could necessitate hiring a Qualified Environmental Professional (QEP).

Q21 Is there an available single line diagram showing the interconnection of the two generators currently onsite?

A21 Single Line Diagram not available. Refer to photos supplied, and the BGIS Energy & Facilities Solutions Ya Ha Tinda Ranch Fuel System Replacement 2020 – Operations and Maintenance Manual (sections applicable) for Electrical Equipment Submittals.

Q22 Could you clarify " proper medical supervision required" in the RFP, does this mean remote paramedic or would proper first aid trained staff suffice?

A22 Level of risk on this decision to be carried and identified by contractor. Site is remote. It is the responsibility of contractor to meet all applicable Occupational Health and Safety legislation and requirements for the jurisdiction of the project – and to provide their own Health and Safety planning for the project work. The work site is fully under the supervision and control of the contractor as it relates to health and safety during the work. For example, it could be assumed that first-aid trained personnel are sufficient, if adequate training, and other safety controls, such as emergency response procedures, are in place to assure health and safety of personnel during the work. Refer to OHS legislation, regulation, or contractor safety program.

D. Tender Package Revisions

Terms of Reference

IN: PD 2.2. Project Background;

DELETE: 1.b. iii:

Provide an industrial battery bank to store electricity during peak hours. The battery bank should be capable of supplying 3 days of energy storage at summer load – to avoid using the generator during the summer months and as far into the shoulder months as possible.

REPLACE WITH: 1.b. iii: Provide an industrial battery bank to store electricity during peak hours. The battery bank should be capable of supplying 3 days of energy storage at **spring, summer, and fall loads**

(from April through September) – to avoid using the generator during the summer months and as far into the shoulder months as possible.

Supply and install Lithium batteries. Heat the building storing batteries using propane. Supply and install a propane-heating system, including all components such as propane tanks, connections, and heaters. Building materials may be proposed as a sea-can, as an acceptable alternative to a pre-engineered building structure; if proposal considers all requirements for access, weather conditions, battery requirements, and of aesthetic character elements of the Ranch and location.

Reference Documents

ADD: DSP2_20-0364

"YaHaTinda_2011-2015_MeterReadings.pdf"

"YaHaTinda_2011-2016_MeterReadings.xls"

"Trees_Cleared_YaHaTinda_17Feb2021.pdf"

"YaHa_Frontier_Generators_2018_redacted.pdf"

"Photos_Electrical_Equipment_YaHaTinda_17Feb2021.pdf"

"17CG0063 - Ya Ha Tinda Ranch - Generator Recommendation and Electrical Req. - Report - Rev. 1.pdf"

"YHT Ranch Energy Audit Database FINAL 31Aug2018.xls"

ALL OTHER TERMS & CONDITIONS REMAIN UNCHANGED