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Voir aux présentes - See herein
Montréal

Québec
H5A 1L6

FAX pour soumissions: (514) 496-3822

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

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Travaux publics et Services gouvernementaux Canada
Place Bonaventure,
800 rue de la Gauchetière Ouest
Voir aux présentes - See herein
Montréal
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H5A 1L6

Title - Sujet Loop Simulator System	
Solicitation No. - N° de l'invitation 23332-180651/A	Amendment No. - N° modif. 003
Client Reference No. - N° de référence du client 23332-18-0651	Date 2018-01-16
GETS Reference No. - N° de référence de SEAG PW-SMTA-030-14648	
File No. - N° de dossier MTA-7-40236 (030)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2018-01-24	
Time Zone Fuseau horaire Heure Normale du l'Est HNE	
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 questions à: Pommet, Bruno André	Buyer Id - Id de l'acheteur mta030
Telephone No. - N° de téléphone (514) 702-9582 ()	FAX No. - N° de FAX (514) 496-3822
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: MINISTÈRE DES RESSOURCES NATURELLES DIVERSIFICATION ÉNERGÉTIQUE 1615 BOUL. LIONEL BOULET J3X 1S6	

Instructions: See Herein

Instructions: Voir aux présentes

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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

AMENDMENT 003

The purpose of this amendment is:

->to extend the closing date to Wednesday January 24, 2018 at 02:00PM (EST)

AND

->to publish a series of questions and answers regarding this request for proposal.

Question #1:

Would you be able to provide a layout/schematic of the HIL configuration including real-time simulator, Hardware Under Test (HUT), SunSpec, etc. with the communications between them (including the type of communications)?

Answer #1:

The RFP contains the required specifications for proposal submission. Details about specific laboratory configuration and requirements will be addressed at contracting time.

Question #2:

Ref.: Page 1 – Answer #2: *“The proposal can include a high impedance isolation/amplification module to provide the desired impedance.”*

Could CanmetENERGY-Varennnes provide this module as you agreed to for the digital input? If no, it would be helpful to know in more detail what you plan on using to drive the A/D input with. That will help us to figure out the high impedance isolation/amplification module.

Answer #2:

CanmetENERGY-Varennnes will not provide a module for the analog input. The analog input will be used for probing circuit signals in power converters such as gate trigger, PLL output, signal conditioning input, etc. High impedance is needed to avoid perturbation to those subsystems, consequently, we maintain the requirement for A/D input impedance ($\geq 1\text{M}\Omega$).

Question #3:

Ref.: Page 2 – Answer #4:

From the explanations, it seems (at least in one application) that you want to use the real-time simulator as a controller for power electronic converters (to develop the control system with the simulator). Would you please comment on this?

Answer #3:

The HIL is intended for inverter research and use of it as a CHIL (Controller-Hardware-In the Loop) for driving transistor bridges is a target application. Therefore, precise high frequency PWM signal generation for power electronic switches is needed.

Question #4:

Ref.: Page 3 – Answer #5: *“However, a distribution system with a transformer substation, multiple power line PI sections, transformers and loads cumulating 100 voltage nodes is acceptable.”*

- a) *We suggest considering the “IEEE 123 node distribution test feeder” as the distribution system that the real time simulator should simulate. This can be used as a reference system for the tender. Otherwise, the scope of supply of the different bidders are not comparable in terms of the cost or size of the power system they are capable of simulating. The information of the suggested test feeder can be found here: <https://ewh.ieee.org/soc/pes/dsacom/testfeeders/>.*
- b) *Is an average model of the inverter sufficient for the larger scale distribution system simulation modeling (i.e. 100 three phase buses)?*

Answer #4:

- a) The IEEE 123 nodes distribution test feeder can be used to demonstrate compliance with the requirements but bidders are not mandated to use a specific test case.
 - b) An average model of the inverter will be sufficient for this 100-node demonstration.
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Question #5:

Ref.: Page 3 – Answer #6: *“The advanced functions include the capability to send or receive dispatch commands or configuration parameters.”* and Page 4 – Answer #8: *“The CanmetENERGY Centre is partnering with other laboratories to implement the SunSpec Validation Platform within its test facility.”*

- a) *As far as we know, SunSpec has a Modbus server. Are you planning to use the SunSpec Modbus TCP server to handle the communication with HUT (Hardware Under Test)?*
- b) *We propose to provide hardware to convert Modbus TCP, provided by our system, to RS232 and RS485. Will this suffice?*

Answer #5:

- a) Yes.
 - b) As long as physical RS-232 and RS-485 ports are attached to the target machine, that complies with the mandatory requirements. Bear in mind that additional points are allocated to the protocols (e.g. SCPI, DNP3, SunSpec) that can be transmitted through these ports.
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Question #6:

Ref.: Page 3 – Answer #7: *“However, the GPS or GPS antenna needs to be capable of being installed outside...”*

Normally when we are required to provide GPS synchronization capabilities we include a GTYNC card in our scope of supply. The GTYNC card is used to synchronize the simulation timestep to an external time reference (e.g. GPS clock) via 1 Pulse Per Second (1PPS) over BNC coax or ST type fibre connectors, IRIG-B over BNC coax connector, as well as IEEE 1588 over RJ45 or ST fibre connectors.

Should the GPS antenna be a part of scope of supply or only the GPS time synchronization port is what you need?

Answer #6:

A proposal with only a GPS time synchronization port will be accepted.

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Amd. No. - N° de la modif.
003
File No. - N° du dossier
MTA-7-40236

Buyer ID - Id de l'acheteur
MTA030
CCC No/N° CCC - FMS No./N° VME

All other terms and conditions remain unchanged.