



RETURN BIDS TO:

RETOURNER LES SOUMISSIONS À:

Bid Receiving - PWGSC / Réception des soumissions -
TPSGC
11 Laurier St. / 11, rue Laurier
Place du Portage, Phase III
Core 0B2 / Noyau 0B2
Gatineau, Québec K1A 0S5
Bid Fax: (819) 997-9776

**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

Fuel & Construction Products Division
L'Esplanade Laurier,
140 O'Connor Street,
East Tower, 4th floor,
Ottawa
Ontario
K1A 0S5

Title - Sujet Electric Circulation Heater	
Solicitation No. - N° de l'invitation 23240-210631/A	Amendment No. - N° modif. 001
Client Reference No. - N° de référence du client 23240-210631	Date 2021-04-21
GETS Reference No. - N° de référence de SEAG PW-\$\$HL-676-79938	
File No. - N° de dossier hl676.23240-210631	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM Eastern Daylight Saving Time EDT on - le 2021-05-10 Heure Avancée de l'Est HAE	
F.O.B. - F.A.B. Specified Herein - Précisé dans les présentes	
Plant-Usine: <input type="checkbox"/> Destination: <input type="checkbox"/> Other-Autre: <input checked="" type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Jouglà (hl676), Jonathan	Buyer Id - Id de l'acheteur hl676
Telephone No. - N° de téléphone (613) 296-6827 ()	FAX No. - N° de FAX () -
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: See herein	

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

QUESTION AND ANSWER – SERIES I

- Q1. Do bids need to be for the entire Electric Circulation Heater as described in Annex “A” – Requirement or can Bidders submit a bid for specific parts only?
- A1. Please refer to Request for Proposal, Annex "A" – Requirement, section 2. Requirement for a description of the requirements. The Contractor (or Bidder) “is to design, supply and deliver one (1) electric high pressure inline process heater for the CanmetENERGY G2 Supercritical CO2 system based on the following specifications in this document. The design for the heater must meet the requirements detailed in the attached specification sheets.” Bids must be for the Electric Circulation Heater including all its associated parts and components.
- Q2. According to the Request for Proposal (RFP), Part 6 – Resulting Contract Clauses, 6.11 Insurance - Specific Requirements and Annex “C” – Insurance Requirements, it states that Commercial General Liability Insurance is required. Please advise on how to obtain such insurance? Is it a yearly type of insurance or must it be held during the contract period only?
- A2. Please refer to the RFP, Part 3 - Bid Preparation Instructions, section 3.1.4 Insurance – Proof of Availability Prior to Contract Award and, Annex “C” – Insurance Requirements, Commercial General Liability Insurance for detailed instructions on how to obtain the insurance requirements and the duration of insurance coverage.
- Q3. Can PSPC confirm the design pressure in psi (165 bar (g) = 2393 psi) and temperature in Fahrenheit (649 °C = 1200 °F)?
- A3. Please see amendment below.
- Q4. At Annex “A” - Requirement, 5.3 Electrical Requirements, 5.3.3, it states Class 1, Division 2, which is explosion proof. The “temperature code” for the gas is 450F maximum. Is the Electric Circulation Heater going to be in an explosion proof environment?
- A4. Please see amendment below.
- Q5. At Annex “A” - Requirement, 5.1 Heater Configuration, 5.1.1, please provide the breakdown of flowrate for the gas and liquid portion with regards to flow (carbon dioxide in liquid, gas and vapour form).
- A5. Please see amendment below.
- Q6. At Annex “A” – Requirement, Attachment 1 to Annex A – Electric Heater Specification Sheet, Can PSPC confirm that the CO2 Temperature In is 615 °C and Out with 640 °C.

Solicitation No. - N° de l'invitation
23240-210631/A
Client Ref. No. - N° de réf. du client
23240-210631

Amd. No. - N° de la modif.
001
File No. - N° du dossier
HL676.23240-210631

Buyer ID - Id de l'acheteur
HL676
CCC No./N° CCC - FMS No./N° VME

A6. As per Annex "A" – Requirement, Attachment 1 to Annex A – Electric Heater Specification Sheet, Operating Conditions, it is confirmed that the Carbon Dioxide Temperature In is 615 °C and Out with 640 °C.

THIS AMENDMENT IS RAISED TO CHANGE THE REQUIREMENT AND THE ELECTRIC HEATER SPECIFICATION SHEET. THE FOLLOWING REVISIONS ARE:

1. At Annex "A" – Requirement, Attachment 1 to Annex A – Electric Heater Specification Sheet, Design Details,

Design Details	
Type of Electric Heater:	Circulation / immersion
Details (configuration, etc.):	All types listed above will be considered provided they meet the technical specifications detailed in this document.
Design Pressure:	165 bar(g) (or 2393.12 psi)
Test Pressure: bar(g)	See Note 1
Design Temperature:	649 °C (or 1200.2 °F)
Corrosion Allowance: mm	See Note 4
Code Requirements:	ASME Section VIII, CSA and CRN for Ontario (see Note 7)
Connections:	See Note 3
Lifespan:	At least 5 years; at least 50 runs/year; at least 10 hours/run

2. At Annex "A" – Requirement, 5.3 Electrical Requirements, 5.3.3, DELETE in its entirety and REPLACE with the following,

"5.3.3 The heater must be equipped with two (2) type "K" thermocouples, affixed to the heating element sheath for over temperature protection. Note: The Electric Circulation Heater will be located in an explosion proof environment."

3. At Annex "A" – Requirement, 5.1 Heater Configuration, 5.1.1, DELETE in its entirety and REPLACE with the following,

"5.1.1 The heater must be designed to heat the following process fluids: carbon dioxide in liquid, gas and vapour form. Note: Normal operation will be in the supercritical phase, however during transient (start-up and shut-down) there will be gas and possibly liquid phase CO₂. While heat rate for these phases is not important, the Contractor must ensure the heater can function with liquid and gas phase."

ALL OTHER TERMS AND CONDITIONS OF THE REQUEST FOR PROPOSAL REMAIN UNCHANGED.