

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

REQUEST FOR PROPOSAL
DEMANDE DE PROPOSITION

**Proposal To: Public Works and Government
Services Canada**

We hereby offer to sell to Her Majesty the Queen in right of Canada, in accordance with the terms and conditions set out herein, referred to herein or attached hereto, the goods, services, and construction listed herein and on any attached sheets at the price(s) set out therefor.

**Proposition aux: Travaux Publics et Services
Gouvernementaux Canada**

Nous offrons par la présente de vendre à Sa Majesté la Reine du chef du Canada, aux conditions énoncées ou incluses par référence dans la présente et aux annexes ci-jointes, les biens, services et construction énumérés ici sur toute feuille ci-annexée, au(x) prix indiqué(s).

Comments - Commentaires

Title - Sujet HEATING BOILER	
Solicitation No. - N° de l'invitation U6800-163691/A	Date 2015-07-08
Client Reference No. - N° de référence du client U6800-163691	
GETS Reference No. - N° de référence de SEAG PW-\$\$HL-659-67630	
File No. - N° de dossier hl659.U6800-163691	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2015-08-18	Time Zone Fuseau horaire Eastern Daylight Saving Time EDT
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: Van Tassel, Stella	Buyer Id - Id de l'acheteur hl659
Telephone No. - N° de téléphone (819) 956-4398 ()	FAX No. - N° de FAX () -
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: DEPARTMENT OF INDUSTRY CANADA 3701 CARLING AVE P.O.BOX 11490 STATION H COMMUNICATIONS RESEARCH CENTRE OTTAWA Ontario K2H8S2 Canada	

Instructions: See Herein

Instructions: Voir aux présentes

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

Delivery Required - Livraison exigée See Herein	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

Issuing Office - Bureau de distribution
Fuel & Construction Products Division
11 Laurier St./11, rue Laurier
7A2, Place du Portage, Phase III
Gatineau, Québec K1A 0S5

Solicitation No. - N° de l'invitation

U6800-163691/A

Amd. No. - N° de la modif.

File No. - N° du dossier

hl659U6800-163691

Buyer ID - Id de l'acheteur

hl659

Client Ref. No. - N° de réf. du client

U6800-163691

CCC No./N° CCC - FMS No/ N° VME

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COMMUNICATION RESEARCH CENTRE

BUILDING 2A – CHCP UPGRADE

PURCHASE DESCRIPTION FOR HEATING BOILERS

ISSUED FOR FINAL
JUNE 2015

1 GENERAL

1.1 GENERAL

- .1 Industry Canada is looking to purchase two (2) gas fired hot water condensing boilers, one (1) control unit, one (1) low-loss header and the associated accessories as specified herein, for the Communications Research Centre (CRC) decentralized heating and cooling plant for building 2A at 3701 Carling Avenue, Ottawa. Equipment installation is expected to start in October 2015 by another party.

1.2 REFERENCES

- .1 American Boiler Manufacturer's Association (ABMA)
- .2 American National Standards Institute (ANSI)
 - .1 ANSI Z21.13-2010/CSA 4.9-10 – Gas-Fired Low-Pressure Steam and Hot Water Boilers.
- .3 American National Standards Institute (ANSI)/ American Society of Mechanical Engineers (ASME)
 - .1 ANSI/ASME Boiler and Pressure Vessel Code – 2010.
- .4 Canadian Gas Association (CGA)
 - .1 CAN1-3.1-77 (R2006) – Industrial and Commercial Gas-Fired Package Boilers.
 - .2 CAN/CSA-B149.1-10 – Natural Gas and Propane Installation Code.
- .5 Canadian Standards Association (CSA International)
 - .1 CSA B51-09 – Boiler, Pressure Vessel, and Pressure Piping Code.
- .6 Electrical and Electronic Manufacturer's Association of Canada (EEMAC)
- .7 Health Canada/Workplace Hazardous Materials Information System (WHMIS)
 - .1 Material Safety Data Sheets (MSDS).
- .8 Air-conditioning, Heating, & Refrigeration Institute (AHRI).

1.3 MINIMUM STANDARDS

- .1 Materials must be new and work must conform to the minimum applicable standards of the Canadian General Standards Board, the Canadian Standards Association, the National Building Code of Canada 2010 (NBC) and all applicable Provincial and Municipal codes. In the case of conflict or discrepancy the most stringent requirement must apply.

1.4 SHOP DRAWINGS

- .1 Submit a PDF copy of each shop drawing.
- .2 The term "shop drawings" means drawings, diagrams, illustrations, schedules, performance charts, brochures and other data which are to be provided by Supplier to illustrate details of a portion of Equipment.

-
- .3 Indicate materials, methods of construction and attachment or anchorage, erection diagrams, connections, explanatory notes and other information necessary for completion of Work. Where articles or equipment attach or connect to other articles or equipment, indicate that such items have been coordinated, regardless of Section under which adjacent items will be supplied and installed. Indicate cross references to design drawings and specifications.
 - .4 Adjustments made on shop drawings by CRC are not intended to change Contract Price.
 - .5 Make changes in shop drawings as CRC may require.
 - .6 Do not commence manufacture or order materials before shop drawings are approved.
 - .7 Present shop drawings, product data and samples in imperial and metric units.
 - .8 Accompany submissions with transmittal letter, in duplicate, containing:
 - .1 Date.
 - .2 Project title and number.
 - .3 Contractor's name and address.
 - .4 Identification and quantity of each shop drawing, product data and sample 1.
 - .5 Other pertinent data.
 - .9 Submissions must include:
 - .1 Date and revision dates.
 - .2 Project title and number.
 - .3 Name and address of:
 - .1 Supplier.
 - .2 Manufacturer.
 - .4 Details of appropriate portions of Work as applicable:
 - .1 Fabrication.
 - .2 Layout, showing dimensions, including identified field dimensions, and clearances.
 - .3 Setting or erection details.
 - .4 Capacities.
 - .5 Performance characteristics.
 - .6 Standards.
 - .7 Operating weight.
 - .8 Wiring diagrams.
 - .9 Single line and schematic diagrams.
 - .10 Relationship to adjacent work.
 - .10 Submit one (1) copy of shop drawing for each requirement requested in specification Sections and CRC may reasonably request.
 - .11 Submit one (1) copy of product data sheets or brochures for requirements requested in specification Sections and as requested by CRC Representative where shop drawings will not be prepared due to standardized manufacture of product.
 - .12 Delete information not applicable to project.
 - .13 Supplement standard information to provide details applicable to project.

- .14 If upon review by CRC Representative, no errors or omissions are discovered or if only minor corrections are made, copies will be returned and fabrication and supply may proceed. If shop drawings are rejected, noted copy will be returned and resubmission of corrected shop drawings, through same procedure indicated above, must be performed before fabrication may proceed.

1.5 FEES, PERMITS AND CERTIFICATES

- .1 The Supplier must pay all fees and obtain all permits necessary to manufacture, transport and supply equipment in this specification. Provide authorities with plans and information for acceptance certificates. Provide inspection certificates as evidence that work has been completed.

1.6 HAZARDOUS MATERIAL

- .1 The Supplier must comply with the requirements of the Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of hazardous materials; and regarding labelling and the provision of Material Safety Data Sheets (MSDS) acceptable to Human Resources Development Canada, Labour Program.

2 PRODUCTS

2.1 GAS FIRED HOT WATER CONDENSING BOILER (QUANTITY OF 2)

- .1 General:
 - .1 The gas fired hot water condensing heating boiler must be fabricated of high grade stainless steel and titanium. The heat exchanger must utilize the heating surface for maximum heat transfer and condensation for optimum energy savings. The smooth, non-fin heat exchanger surfaces must provide a self-cleaning effect while promoting clean combustion through low heat exchanger loading and a straight-through design.
 - .2 The boiler must incorporate a modulating compact pre-mix cylindrical stainless steel gas burner with a high alloy stainless steel surface capable of operating with consistently high efficiency. The burner must be equipped with a variable speed combustion fan for quiet and economical operation.
 - .3 The boiler vent system must meet Category IV venting requirements. The vent material must be UL/ULC/CSA listed for Category IV, made of either stainless steel or polypropylene (PPs), and be water and gas tight. Sidewall venting applications must be acceptable.
- .2 Performance Criteria:
 - .1 Each boiler must be designed for operating at:
 - .1 Natural Gas input range: 133 – 633 MBH (39-194 kW)
 - .2 Maximum output: 643 MBH (188 kW)
 - .2 Boiler turn-down ratio must be 5:1.
 - .3 Combustion efficiency must not be below 95% and thermal efficiency must not be below 97% as tested to AHRI; BTS-2000 Testing Standard Method to Determine Efficiency of Commercial Heating Boilers.
 - .4 ASME maximum allowable working pressure (MAWP): 75 psig.
 - .5 ASME maximum water temperature: 210°F (99°C).
 - .6 Maximum boiler operating temperature: 190 (88°C).
 - .7 The boiler must operate without a flow switch.

- .8 The boiler weight range must be between 600 and 900 lbs, including the burner, controls and jacketing. Heat exchanger surface area must not exceed 75 ft² (6.9 m²).
- .9 No additional safety devices must be required to safeguard against low flow conditions.
- .10 The boiler must have low flow resistance. At the maximum flow rate through the heat exchanger, the boiler must have head resistance not greater than 14 inches of water column.
- .11 The condensation rate, controlled by optimum combustion, must be able to meet a CO₂ value of 10% through the entire firing range.
- .12 The standard control options must be able to operate independently, or integrate with building management system protocols as referenced in the control section.

2.2 CONSTRUCTION

- .1 The combustion chamber and heat exchanger must be constructed of high-alloy stainless steel and titanium.
- .2 The R-value of the insulation must be equivalent to 4" (100 mm) mineral wool with nylon backing.
- .3 The flue gasses must pass by the return water in a counter-flow direction only, for maximum heat transfer effectiveness.
- .4 The heat exchanger must be of a compact design for ease of handling, and incorporate a full-swing door, left or right hinge, to allow for easy inspection and cleaning.
- .5 The burner must be constructed from high-grade stainless steel for universal use with natural gas. Burner ignition must be by a direct spark ignition system.
- .6 The burner must be capable of operating at natural gas pressures from 4 up to 14" W.C.
- .7 The burner must incorporate the electronic high limit, and the manual reset fixed high limit.
- .8 The burner and its associated controls must be manufactured by the same manufacturer as the boiler.

2.3 CERTIFICATIONS

- .1 All individual components must be accepted as part of the system under the governing body having jurisdiction. Field approval must not be required for any component. Boiler must be CSA approved and must be built in compliance with ASME Section IV, carrying the "H" stamp.
- .2 The boiler must have the following approvals and listings, or be in compliance with: CGA, CSA, ASME, AHRI.

2.4 CONTROL UNIT (QUANTITY OF 1)

- .1 The control unit must provide control for two (2) boilers in a system with high temperature circuit, weather responsive reset, and BACnet communication protocol for monitoring by existing Building Management System (BMS). The lead/lag boiler is alternated every week.

- .2 General Requirements: The controller must have the following features:
 - .1 User interface display.
 - .2 Compatible with boiler modulating burner.
 - .3 Erasable Programmable Read Only Memory (EPROM) is maintained without main power.
 - .4 Control algorithms are Proportional Integral Derivative (PID)-based.
 - .5 LON ready with integrated boiler LON communication module.
 - .6 Quick connect plug & play system for low voltage controls.
 - .7 Communication with other protocols such as Modbus, BacNet and LON (Ethernet/IP) must be available through accessories gateways.
- .3 The controller must be factory tested and approved by CSA as part of a package with the compatible series of boilers.
 - .1 The controller in the boiler operation must be able to support the following output devices:
 - .1 Boiler Modulating burner.
 - .2 Modulating boiler isolation valve.
 - .3 Boiler pump.
 - .4 Hot water heating loop circulation pumps.
- .4 The control interface must be a digital display capable of displaying temperatures as °C or °F, with menu driven selection functions, with access to the following operating points:
 - .1 Able to display all system temperatures and set points.
 - .2 Displays unique fault message during an alarm.
 - .3 A program selection mode.
 - .4 Information indicator with confirmation button.
 - .5 Boiler operating hours display.
 - .6 Number of burner starts display.
 - .7 Operating status check.
 - .8 Emission/service test switch.
 - .9 Adjust the display contrast.
 - .10 Temporary occupied mode function.
 - .11 Slope and shift adjustment for heating curve.
- .5 Additional features:
 - .1 On/Off switch.
 - .2 Default factory settings reset.
 - .3 Operating status indication light.
 - .4 Tamper-proof adjustable high limit.
 - .5 Service switch.
 - .6 Fault indicator light.
 - .7 Operating condition scans.
 - .8 Maintenance requirement status.
 - .9 Relay test function.
 - .10 Integrated boiler flue gas temperature sensor.
 - .11 Participant check (LON nodes).
 - .12 Quick heat up and quick set-back functions.
 - .13 Start-up and shut-down optimization functions.
 - .14 Warm weather shut-down.
 - .15 Energy savings mode.
- .6 Boiler system supply water temperature control:

- .1 The boiler supply water temperature must have a calculated heating curve which provides the required supply water temperature at different outside air temperatures. The slope and shift of each heating curve must be adjusted to fit the building heating pattern. The highest required temperature demand must be used to determine the common boiler supply temperature set-point.
- .2 In the unoccupied mode, Boiler Sequencing Panel will reduce the supply water temperature set-point must be reduced by a pre-determined amount.
- .3 Control logic must be equipped to protect the heating system from freeze-up if left powered during the off season.
- .7 Fault Management:
 - .1 If a fault occurs on a boiler, the fault code must be indicated in the display window and by the flashing red fault lamp. A compiled failure alarm contact must close in order to signal the alarm condition to a Building Automation System (BAS). The message must also be broadcasted on the LON communication bus. The error history must be saved to memory.
- .8 Scheduling:
 - .1 There must be time schedules for hot water heating operation. Each device on the hot water system must be able to be scheduled to switch between occupied and unoccupied modes up to four times per day.
- .9 Boiler Rotation:
 - .1 The boilers must be rotated once a week according to an equal run-time strategy or on a schedule every 200 to 2000 hours. A dry contact must be incorporated to make the current lead boiler the lag boiler whenever contact is closed.
- .10 Auxiliary Inputs:
 - .1 The following dry contact inputs must be available to be wired to each boiler to control the following functions:
 - .1 Boiler disable.
 - .2 Change between modulating to staged burner control.
 - .3 External heat demand.
 - .4 Boiler sequencing.
 - .5 External enable.
 - .6 External blocking.
 - .7 Heating program changeover.
 - .8 Heating zone supply water set point adjustment.
- .11 Building Management System Interface:
 - .1 The controller must be able to fully integrate with Building Management Systems running on the BacNet, Modbus, or LON (Ethernet/IP) communication protocols via a gateway.
 - .2 The controller must have the ability to be connected to an Internet server interface, which must allow access to all programming and operating parameters over the World Wide Web (when used in conjunction with BMS interface and accessory communication gateway).
- .12 Certifications:
 - .1 All individual components must be accepted as part of the system under the governing body having jurisdiction. Field approval must not be required for any component.
 - .2 Boiler internal electrical wiring is to be done in accordance with the latest editions of:

- .1 CSA C22.1 Canadian Electrical Code and/or local electrical codes.

2.5 LOW-LOSS HEADER (QUANTITY OF 1)

- .1 The low-loss header must be constructed of mild carbon steel with NPS or ANSI fittings. The device must be designed and tested with various flow rates having predictable hydronic resistance charts available for the design purpose.
- .2 The low-loss header must be designed and tested with time-proven, standard control strategies allowing for optimum boiler efficiency, ease of installation and programming.
- .3 The Supplier must make approved drawings available, which contain piping and control diagrams with low-loss header configurations and sizing.
- .4 Provide an insulated enclosure with aluminum jacket.

2.6 ACCESSORIES

- .1 Control:
 - .1 Provide a communication gateway that allows for data transfer between the boiler LON System, and a Building Management System or Building Automation System using either BACnet or Modbus communication protocols.
- .2 Condensate Neutralizers:
 - .1 Provide a condensate neutralizer sized for the boiler system.
- .3 The gateway must have the following features:
 - .1 Communication with 2 boilers in a single system.
 - .2 Enclosure for remote mounting or wall mounting.
 - .3 Shipped complete with 24VDC Power Supply Unit.
 - .4 USB configuration back-up port.
 - .5 LAN connection port for communication with PC/Laptop, BACnet IP, or Modbus TC/IP
 - .6 RS485 port for communication using BACnet MS/TP or Modbus 485.
 - .7 Two LON communication ports for integration into the boiler LON system.
 - .8 The gateway must be factory tested and approved by CSA as part of a package with the compatible series of boilers.
- .4 Installation Fittings:
 - .1 Low water cut-off.
 - .2 Safety header.
 - .3 Drain valve.
 - .4 Combustion air kit.
 - .5 Natural gas conversion kit.
- .5 Provide two (2) circulator pumps: in-line design with opposite suction and discharge ports to be mounted in pipework.

2.7 WARRANTY

- .1 The Supplier must provide a warranty to cover the boiler enclosure, burner, controls and other accessories to cover defects in materials and workmanship for two (2) years from the date of original installation of the boiler.

- .2 Repair or replacement of parts will be made during the period of two (2) years from the date of original installation.
- .3 The Supplier must warrant that the pressure vessel of the boiler must be free of defects in materials and workmanship for ten (10) years from the date of original installation.

2.8 TRAINING/STARTUP/COMMISSIONING

- .1 The Supplier to provide; trained representatives to:
 - .1 Provide assistance during installation to ensure the Contractor is following all manufacturer recommended procedures.
 - .2 Review of installation during construction and at critical points during installation.
 - .3 Reviews and signoff of installation stating the installation complies with manufacturer requirements and recommendations before equipment startup.
 - .4 Provide guidance and assistance during startup to ensure manufacturer recommended procedures are followed and equipment starts/operates as specified.
 - .5 Provide assistance during commissioning to ensure equipment operates as intended in contract drawings and sequences.
 - .6 Provide any trouble shooting assistance necessary during startup/commissioning.
 - .7 Completed startup forms showing working parameters of equipment at startup and commissioning. Templates must be provided in advance for Engineer's review and must be modified as required by Engineer. Completed forms must be provided for insertion into O&M manuals.
- .2 The Supplier must also;
 - .1 Provide training in accordance with client requirements: one (1) full day training session at project site.
 - .1 One morning session for boiler operation.
 - .2 One afternoon session for boiler controls.
 - .2 Must provide all necessary training materials.
 - .3 Must provide any videos, literature or aids required for training.
 - .4 Must provide written confirmation of all operators who have been trained.

APPENDIX 1 – Compliancy Matrix

Building 2A Heating and Cooling System
Communications Research Centre

Technical Evaluation Grid
HEATING BOILERS
Page 1 of 4

1 General

1.3 MINIMUM STANDARDS

- The Bidder must guarantee the materials are new and work must conform to the minimum applicable standards of the Canadian General Standards Board, the Canadian Standards Association, the National Building Code of Canada 2010 (NBC) and all applicable Provincial and Municipal codes. In the case of conflict or discrepancy the most stringent requirement must apply.

Yes___No___

1.4 SHOP DRAWINGS

- Provide shop drawings as specified as per Section 1.4 on page 1 of 8 in the Building 2A - CHCP Upgrade document.

Yes___No___

1.5 FEES, PERMITS and CERTIFICATES

- The Bidder must pay all fees and obtain all permits necessary to manufacture, transport and supply equipment in this specification. Provide authorities with plans and information for acceptance certificates. Provide inspection certificates as evidence that work has been completed.

Yes___No___

1.6 HAZARDOUS MATERIAL

- The Bidder must comply with the requirements of the Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of hazardous materials; and regarding labelling and the provision of Material Safety Data Sheets (MSDS) acceptable to Human Resources Development Canada, Labour Program.

Yes___No___

2 Products

2.1 GAS FIRED HOT WATER CONDENSING BOILER (Quantity of 2)

2.1.1 General

- The gas fired hot water condensing heating boiler must be fabricated of high grade stainless steel and titanium. The heat exchanger must utilize the heating surface for maximum heat transfer and condensation for optimum energy savings. The smooth, non-fin heat exchanger surfaces must

APPENDIX 1 – Compliancy Matrix

Building 2A Heating and Cooling System Communications Research Centre		Technical Evaluation Grid HEATING BOILERS Page 2 of 4
	provide a self-cleaning effect while promoting clean combustion through low heat exchanger loading and a straight-through design.	Yes___ No___
	<ul style="list-style-type: none">The boiler must incorporate a modulating compact pre-mix cylindrical stainless steel gas burner with a high alloy stainless steel surface capable of operating with consistently high efficiency. The burner must be equipped with a variable speed combustion fan for quiet and economical operation.	Yes___ No___
	<ul style="list-style-type: none">The boiler vent system must meet Category IV venting requirements. the vent material must be UL/ULC/CSA listed for Category IV, made of either stainless steel or polypropylene (PPs), and be water and gas tight. Sidewall venting applications must be acceptable.	Yes___ No___
2.1.2	Performance Criteria	
	<ul style="list-style-type: none">Provide gas fired condensing boiler as specified as per section 2.1 on page 3 of 8 in building 2A – CHCP Upgrade document.	Yes___ No___
2.2	CONSTRUCTION	
	<ul style="list-style-type: none">The combustion chamber and heat exchanger must be constructed of high-alloy stainless steel and titanium.	Yes___ No___
	<ul style="list-style-type: none">The R-value of the insulation must be equivalent to 4" (100 mm) mineral wool with nylon backing.	Yes___ No___
	<ul style="list-style-type: none">The flue gasses must pass by the return water in a counter-flow direction only, for maximum heat transfer effectiveness.	Yes___ No___
	<ul style="list-style-type: none">The heat exchanger must be of a compact design for ease of handling, and incorporate a full-swing door, left or right hinge, to allow for easy inspection and cleaning.	Yes___ No___
	<ul style="list-style-type: none">The burner must be constructed from high-grade stainless steel for universal use with natural gas. Burner ignition must be by a direct spark ignition system.	Yes___ No___
	<ul style="list-style-type: none">The burner must be capable of operating at natural gas pressures from 4 up to 14" W.C.	Yes___ No___
	<ul style="list-style-type: none">The burner must incorporate the electronic high limit, and the manual reset fixed high limit.	Yes___ No___

APPENDIX 1 – Compliancy Matrix

Building 2A Heating and Cooling System
Communications Research Centre

Technical Evaluation Grid
HEATING BOILERS
Page 3 of 4

- The burner and its associated controls must be manufactured by the same manufacturer as the boiler.

Yes____ No____

2.3 CERTIFICATIONS

- All individual components must be accepted as part of the system under the governing body having jurisdiction. Field approval must not be required for any component. Boiler must be CSA approved and must be built in compliance with ASME Section IV, carrying the “H” stamp.

Yes____ No____

- The boiler must have the following approvals and listings, or be in compliance with: CGA, CSA, ASME, AHRI.

Yes____ No____

2.4 CONTROL UNIT (Quantity of 1)

- Provide sequencing control unit for two (2) boilers as specified as per section 2.4 on page 4 of 8 in Building 2A – CHCP Upgrade document.

Yes____ No____

2.5 LOW LOSS HEADER (Quantity of 1)

- The low-loss header must be constructed of mild carbon steel with NPS or ANSI fittings. The device must be designed and tested with various flow rates having predictable hydronic resistance charts available for the design purpose.

Yes____ No____

- The low-loss header must be designed and tested with time-proven, standard control strategies allowing for optimum boiler efficiency, ease of installation and programming.

Yes____ No____

- The boiler manufacturer must make approved drawings available, which contain piping and control diagrams with low-loss header configurations and sizing.

Yes____ No____

- Provide an insulated enclosure with aluminum jacket.

Yes____ No____

2.6 ACCESSORIES

- Provide accessories as specified per section 2.6 on page 7 of 8 in the building 2A –CHCP Upgrade document.

Yes____ No____

2.7 WARRANTY

- The Supplier must provide a warranty to cover the boiler enclosure, burner, controls and other accessories must be free of defects in materials and workmanship for two (2) years from the date of original installation of the boiler.

Yes____ No____

APPENDIX 1 – Compliancy Matrix

Building 2A Heating and Cooling System
Communications Research Centre

Technical Evaluation Grid
HEATING BOILERS
Page 4 of 4

- Repair or replacement of parts will be made during the period of two (2) years from the date of original installation. Yes___ No___
- The Supplier must warrant that the pressure vessel of the boiler must be free of defects in materials and workmanship for ten (10) years from the date of original installation. Yes___ No___

2.8 TRAINING/STARTUP/COMMISSIONING

- Provide assistance during installation to ensure the Contractor is following all manufacturer recommended procedures. Yes___ No___
- Review of installation during construction and at critical points during installation. Yes___ No___
- Reviews and signoff of installation stating the installation complies with manufacturer requirements and recommendations before equipment start-up. Yes___ No___
- Provide guidance and assistance during start-up to ensure manufacturer recommended procedures are followed and equipment starts/operates as specified. Yes___ No___
- Provide assistance during commissioning to ensure equipment operates as intended in contract drawings and sequences. Yes___ No___
- Provide any trouble shooting assistance necessary during startup/commissioning. Yes___ No___
- Completed start-up forms showing working parameters of equipment at start-up and commissioning. Templates must be provided in advance for Engineer's review and must be modified as required by Engineer. Completed forms must be provided for insertion into O&M manuals. Yes___ No___
- Provide training in accordance with client requirements:
One full day training session at project site:
One morning session for boiler operation, and one afternoon session for boiler controls. Yes___ No___
- Must provide all necessary training materials. Yes___ No___
- Must provide any videos, literature or aids required for training. Yes___ No___
- Must provide written confirmation of all operators who have been trained. Yes___ No___

ANNEX B – PRICING TABLE

Gas Fired Heating Boilers and Components (Firm Quantity)

The Bidder must provide a unit cost for a quantity of two (2) Gas Fired Heating Boilers, one (1) Control Unit, one (1) Low Loss Header and two (2) circular pumps in accordance with Annex “A” - Purchase Description – Gas Fired Heating Boilers and components.

A	B		C	D	E
Item	Description	Annex A reference – page and section	Quantity	Firm Price per unit (Bidder to complete)	Extended Price excluding taxes - (sum of column C X column D - Bidder to complete -)
1.	Two (2) Gas Fired Heating Boilers*	Page 3 2.1, 2.2, 2.3	2	\$ _____	\$ _____
2.	One (1) Control Unit*	Page 4, 5, 6 & 7 2.4, 2.6	1	\$ _____	\$ _____
3.	One (1) Low Loss Header*	Page 7 2.5	1	\$ _____	\$ _____
4.	Two (2) Circular Pumps*	Page 7 2.6.5	2	\$ _____	\$ _____
5.	Provision of assistance during installation, guidance and assistance during start-up and commissioning and training of operators (including training material).	Page 8 2.8	1	\$ _____	\$ _____
		Total price excluding taxes			\$ _____

***Pricing for items 1 to 5 above must include** costs for delivery to (and travel for item 5) 3701 Carling Avenue, Ottawa, ON as well as warranty, as outlined in Annex “A” - Purchase Description – Gas Fired Heating Boilers and components.

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File No. - N° du dossier
hl659. U6800-163691

Buyer ID - Id de l'acheteur
hl659
CCC No./N° CCC - FMS No./N° VME

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ANNEX A – Purchase Description - Gas Fired Heating Boilers and components
APPENDIX 1 – Compliancy Matrix
ANNEX B – Pricing Table

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

PART 1 - GENERAL INFORMATION

1.1 Statement of Requirement - Bid

To supply and deliver two (2) Gas Fired Heating Boilers and related components as detailed in the attached Annex A – Purchase Description – Gas Fired Heating Boilers and components.

1.2 Debriefings

Bidders may request a debriefing on the results of the bid solicitation process. Bidders should make the request to the Contracting Authority within 15 working days from receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.

PART 2 - BIDDER INSTRUCTIONS

2.1 Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the *Standard Acquisition Clauses and Conditions Manual* (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

Bidders who submit a bid agree to be bound by the instructions, clauses and conditions of the bid solicitation and accept the clauses and conditions of the resulting contract.

The 2003 (2015-07-03) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

Subsection 5.4 of 2003, Standard Instructions - Goods or Services - Competitive Requirements, is amended as follows:

Delete: 60 days
Insert: 90 days

2.2 Submission of Bids

Bids must be submitted only to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit by the date, time and place indicated on page 1 of the bid solicitation.

2.3 Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than ten (10) calendar days before the bid closing date. Enquiries received after that time may not be answered.

Bidders should reference as accurately as possible the numbered item of the bid solicitation to which the enquiry relates. Care should be taken by bidders to explain each question in sufficient detail in order to enable Canada to provide an accurate answer. Technical enquiries that are of a proprietary nature must be clearly marked "proprietary" at each relevant item. Items identified as "proprietary" will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the question(s) or may request that the Bidder do so, so that the proprietary nature of the question(s) is eliminated, and the enquiry can be answered to all bidders. Enquiries not submitted in a form that can be distributed to all bidders may not be answered by Canada.

2.4 Applicable Laws

Any resulting contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Ontario.

Bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their bid, by deleting the name of the Canadian province or territory specified and inserting the name of the Canadian province or territory of their choice. If no change is made, it acknowledges that the applicable laws specified are acceptable to the bidders.

2.5 Best Delivery Date - Bid

While delivery is requested by October 19, 2015, the best delivery that could be offered is _____ . (*Bidder to complete*)

PART 3 - BID PREPARATION INSTRUCTIONS

3.1 Bid Preparation Instructions

Canada requests that bidders provide their bid in separately bound sections as follows:

Section I: Technical Criteria Bid (Two (2) hard copies)

Section II: Financial Bid (One (1) hard copy)

Section III: Certifications (One (1) hard copy)

Prices must appear in Annex B – Pricing Table only. No prices must be indicated in any other section of the bid.

Canada requests that bidders follow the format instructions described below in the preparation of their bid:

- (a) use 8.5 x 11 inch (216 mm x 279 mm) paper;
- (b) use a numbering system that corresponds to the bid solicitation.

In April 2006, Canada issued a policy directing federal departments and agencies to take the necessary steps to incorporate environmental considerations into the procurement process Policy on Green Procurement (<http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html>). To assist Canada in reaching its objectives, bidders should:

- 1) use 8.5 x 11 inch (216 mm x 279 mm) paper containing fibre certified as originating from a sustainably-managed forest and containing minimum 30% recycled content; and
- 2) use an environmentally-preferable format including black and white printing instead of colour printing, printing double sided/duplex, using staples or clips instead of cerlox, duotangs or binders.

Section I: Technical Bid

In their technical bid, bidders should explain and demonstrate how they propose to meet the requirements and how they will carry out the Work.


1.1 Bidders must submit a full Technical Proposal in accordance with the mandatory criteria listed in Annex A. The Technical Proposal will form the basis of evaluation and therefore must be complete. Bidders must provide the Technical Proposal with their bid. Failure to provide a Technical Proposal with the bid will render the proposal non-responsive.

1.2 Bidders must provide the date by which they will complete delivery of heating boilers and components to Industry Canada at 3701 Carling Ave, Ottawa, Ontario.


Section II: Financial Bid

Bidders must submit their financial bid using the attached Annex B – Pricing Table and in accordance with the Basis of Payment. The total amount of Applicable Taxes must be shown separately.

2.1 Exchange Rate Fluctuation Risk Mitigation

1. The Bidder may request Canada to assume the risks and benefits of exchange rate fluctuations. If the Bidder claims for an exchange rate adjustment, this request must be clearly indicated in the bid at time of bidding. The Bidder must submit form [PWGSC-TPSGC 450](#) , Claim for Exchange

Rate Adjustments with its bid, indicating the Foreign Currency Component (FCC) in Canadian dollars for each line item for which an exchange rate adjustment is required.

2. The FCC is defined as the portion of the price or rate that will be directly affected by exchange rate fluctuations. The FCC should include all related taxes, duties and other costs paid by the Bidder and which are to be included in the adjustment amount.
3. The total price paid by Canada on each invoice will be adjusted at the time of payment, based on the FCC and the exchange rate fluctuation provision in the contract. The exchange rate adjustment will only be applied where the exchange rate fluctuation is greater than 2% (increase or decrease).
4. At time of bidding, the Bidder must complete columns (1) to (4) on form [PWGSC-TPSGC 450](#) , for each line item where they want to invoke the exchange rate fluctuation provision. Where bids are evaluated in Canadian dollars, the dollar values provided in column (3) should also be in Canadian dollars, so that the adjustment amount is in the same currency as the payment.
5. Alternate rates or calculations proposed by the Bidder will not be accepted for the purposes of this exchange rate fluctuation provision.

2.2 Progress Payments

Progress payments will not be considered unless specifically offered by PWGSC in this document.

Section III: Certifications

Bidders must submit the certifications required under Part 5.

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

4.1 Evaluation Procedures

- (a) Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria; and
- (b) An evaluation team composed of representatives of Canada and WSP Canada Inc. will evaluate the bids.

4.1.1 Technical Evaluation

All bids must be completed in full and provide all of the information requested in the bid solicitation to enable full and complete evaluation.

4.1.1.1 Mandatory Technical Evaluation Criteria

The following MANDATORY factors will be taken into consideration in the evaluation of each bid.

- a) Bidders must provide documentation with their bid showing how they meet the technical requirements detailed in Annex "A" – Purchase Description - Gas Fired Heating Boilers and components;
- b) Bidders must submit with their bid a completed Appendix 1 – Compliancy Matrix; and
- c) Completion of the Certificate of Conformance in Part 5

Bids not meeting these mandatory technical criteria will be given no further consideration.

4.1.2 Financial Evaluation

4.1.3.1 Mandatory Financial Criteria

- a) Bidders must bid firm unit prices in Canadian funds, Applicable Taxes excluded, DDP Delivered Duty Paid to destination(s) Incoterms 2000, Customs Duties included.
- b) Bidders must provide pricing for all required items using the attached Annex B – Pricing Table.

4.1.3.2 Evaluated Price

The total evaluated price will be determined using the “**Total price excluding taxes**” of Annex B – Pricing Table.

4.2 Basis of Selection – Multiple Items

A bid must comply with the requirements of the bid solicitation and meet all mandatory technical evaluation criteria to be declared responsive. The responsive bid with the lowest evaluated price on an aggregate basis will be recommended for award of a contract.

Only one contract will be issued as a result of this RFP.

PART 5 - CERTIFICATIONS

Bidders must provide the required certifications and additional information to be awarded a contract.

The certifications provided by Bidders to Canada are subject to verification by Canada at all times. Canada will declare a bid non-responsive, or will declare a contractor in default if any certification made by the Bidder is found to be untrue whether made knowingly or unknowingly, during the bid evaluation period or during the contract period.

The Contracting Authority will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply and to cooperate with any request or requirement imposed by the Contracting Authority will render the bid non-responsive or constitute a default under the Contract.

5.1 Certification Required with the Bid

Bidders must submit the following duly completed certifications as part of their bid.

5.1.1 Declaration of Convicted Offences

As applicable pursuant to subsection Declaration of Convicted Offences of section 01 of the Standard Instructions, the Bidder must provide its bid, a completed [Declaration Form](#), to be given further consideration in the procurement process

5.2 Certifications Precedent to Contract Award and Additional Information

The certifications and additional information listed below should be submitted with the bid, but may be submitted afterwards. If any of these required certifications or additional information is not completed and submitted as requested, the Contracting Authority will inform the Bidder of a time frame within which to provide the information. Failure to provide the certifications or the additional information listed below within the time frame provided will render the bid non-responsive.

5.2.1 Integrity Provisions – List of Names

Bidders who are incorporated, including those bidding as a joint venture, must provide a complete list of names of all individuals who are currently directors of the Bidder.

Bidders bidding as sole proprietorship, as well as those bidding as a joint venture, must provide the name of the owner(s).

Bidders bidding as societies, firms or partnerships do not need to provide lists of names.

5.2.2 Federal Contractors Program for Employment Equity - Bid Certification

By submitting a bid, the Bidder certifies that the Bidder, and any of the Bidder's members if the Bidder is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "[FCP Limited Eligibility to Bid](http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml)" list (http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml) available [from Employment and Social Development Canada \(ESDC\) - Labour's](#) website.

Canada will have the right to declare a bid non-responsive if the Bidder, or any member of the Bidder if the Bidder is a Joint Venture, appears on the "[FCP Limited Eligibility to Bid](#)" list at the time of contract award.

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Buyer ID - Id de l'acheteur
hl659
CCC No./N° CCC - FMS No./N° VME

5.2.3 Certificate of Conformance - (*Bidder to complete*)

The Bidder certifies herein that the products offered conform and will continue to conform to the specifications in Annex "A" Purchase Description - Gas Fired Heating Boilers and components during the period of the Contract.

Signature

Date

PART 6 - RESULTING CONTRACT CLAUSES

The following clauses and conditions apply to and form part of any contract resulting from the bid solicitation.

6.1 Security Requirements

There is no security requirement applicable to this Contract.

6.2 Statement of Requirement - Contract

The Contractor must provide the items in accordance with Annex A – Purchase Description – Gas Fired Heating Boilers and components.

6.3 Standard Clauses and Conditions

All clauses and conditions identified in the Contract by number, date and title are set out in the Standard Acquisition Clauses and Conditions Manual (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

6.3.1 General Conditions

2010A (2014-11-27) General Conditions - Goods (Medium Complexity), apply to and form part of the Contract.

6.4 Term of Contract

6.4.1 Delivery Date - *(To be inserted by the Contracting Authority at contract award)*

All the deliverables must be received on or before _____.

6.4.2 Adherence to Delivery Schedule

The Contractor will promptly give notice to the Department of Public Works and Government Services of its inability to meet the contract delivery schedule and will request therein an extension of time stating its proposed revised delivery schedule and offering consideration for such revisions. Until such notice is received and the revised delivery schedule agreed to by the Department of Public Works and Government Services, the Minister may, pursuant to the General Conditions, on the business day following the due date of delivery of any outstanding materials, **terminate the whole or part of the contract for default.**

6.5 Authorities

6.5.1 Contracting Authority

The Contracting Authority for the Contract is:

Stella Van Tassel

Public Works and Government Services Canada

Acquisitions Branch, Commercial Acquisition & Supply Management Sector

Logistics, Electrical, Fuel & Transportation Directorate

Fuel & Construction Products Division (HL)

11 Laurier Street, 7A2, Place du Portage, Phase III

Gatineau, QC K1A 0S5

Telephone: 819-956-4398

Facsimile: 819-956-5227

E-mail address: stella.vantassel@tpsgc-pwgsc.gc.ca

The Contracting Authority is responsible for the management of the Contract and any changes to the Contract must be authorized in writing by the Contracting Authority. The Contractor must not perform work in excess of or outside the scope of the Contract based on verbal or written requests or instructions from anybody other than the Contracting Authority.

6.5.2 Technical Authority *(To be completed by the Contracting Authority at contract award)*

The Technical Authority for the Contract is:

Name: _____

Title: _____

Organization: _____

Address: _____

Telephone: ____ - ____ - ____

Facsimile: ____ - ____ - ____

E-mail: _____

The Technical Authority named above is the representative of the department or agency for whom the Work is being carried out under the Contract and is responsible for all matters concerning the technical content of the Work under the Contract. Technical matters may be discussed with the Technical Authority; however the Technical Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

6.5.3 Contractor's Representative *(To be completed by the Contracting Authority at contract award)*

Name: _____

Telephone No.: _____

Facsimile No.: _____

E-mail address: _____

6.6 Payment

6.6.1 Basis of Payment - Firm Unit Prices

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid firm unit prices as specified in the Annex B – Pricing Table, for a cost of \$ _____ CAD. Customs duties are included and Applicable Taxes are extra. *(To be completed by the Contracting Authority at contract award)*

6.6.2 Limitation of Price

Canada will not pay the Contractor for any design changes, modifications or interpretations of the Work, unless they have been approved, in writing, by the Contracting Authority before their incorporation into the Work.

6.6.3 Terms of Payment

SACC Manual clause H1000C (2008-05-12) Single Payment.

6.7 Invoicing Instructions

The Contractor must submit invoices in accordance with the section entitled "Invoice Submission" of the general conditions. Invoices cannot be submitted until all work identified in the invoice is completed. Suppliers are requested to provide invoices in electronic format unless otherwise specified by the Contracting Authority or Project Authority, thereby reducing printed material.

Invoices must be distributed as follows:

- (a) The original and one (1) copy must be forwarded to the following address for certification and payment.

**Industry Canada
Communications Research Centre
3701 Carling Ave
PO Box 11490 Station H
Ottawa, ON K2H 8S2**

- (b) One (1) copy must be forwarded to the Contracting Authority identified under section 4 - Authorities of the Contract.

6.8 Certifications

6.8.1 Compliance

The continuous compliance with the certifications provided by the Contractor in its bid and the ongoing cooperation in providing associated information are conditions of the Contract. Certifications are subject to verification by Canada during the entire period of the Contract. If the Contractor does not comply with any certification, fails to provide the associated information, or if it is determined that any certification made by the Contractor in its bid is untrue, whether made knowingly or unknowingly, Canada has the right, pursuant to the default provision of the Contract, to terminate the Contract for default.

6.9 Applicable Laws *(To be completed by the Contracting Authority at contract award)*

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in _____.

6.10 Priority of Documents

If there is a discrepancy between the wording of any documents that appear on the list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.

- (a) the Articles of Agreement;
(b) the general conditions 2010A (2014-11-27) Goods (Medium Complexity);
(c) Annex A – Purchase Description – Gas Fired Heating Boilers and components;
(d) Annex B, Pricing Table; and
(e) the Contractor's bid dated _____, as clarified on _____ or “, as amended on _____” *(To be completed by the Contracting Authority at contract award)*

6.11 SACC Manual Clauses

The following terms and conditions are incorporated herein:

SACC Reference	Section	Date
G1005C	Insurance	2008-05-12

6.12 Inspection and Acceptance

The Technical Authority is the Inspection Authority. All reports, deliverable items, documents, goods and all services rendered under the Contract are subject to inspection by the Inspection Authority or representative. Should any report, document, good or service not be in accordance with the requirements of the Statement of Work and to the satisfaction of the Inspection Authority, as submitted, the Inspection Authority will have the right to reject it or require its correction at the sole expense of the Contractor before recommending payment.

6.13 Preparation for Delivery

Arrangements for delivery must be made by contacting the Technical Authority prior to delivery. Any attempt by the carrier to deliver the equipment will be refused unless arrangements have been made for authorized, qualified personnel to be available to perform inspections and to accept the delivery. When the carrier is required to return due to its failure to make an appointment for delivery, Canada will not be liable to pay for additional costs.

6.14 Shipping Instructions - Delivery at Destination

Goods must be consigned to the destination specified in the Contract and delivered DDP Delivered Duty Paid to Industry Canada at 3701 Carling Avenue, Ottawa, Ontario, Incoterms 2000 for shipments from commercial contractor.