

RETURN BIDS TO: RETOURNER LES SOUMISSIONS À:

Bid Receiving - Environment and Climate Change Canada / Réception des soumissions - Environnement Canada

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BID SOLICITATION DEMANDE DE SOUMISSONS

PROPOSAL TO: ENVIRONMENT AND CLIMATE CHANGE CANADA

We offer to perform or provide to Canada the services detailed in the document including any attachments and annexes, in accordance with the terms and conditions set out or referred to in the document, at the price(s) provided.

SOUMISSION À: ENVIRONNEMENT CANADA

Nous offrons d'effectuer ou de fournir au Canada, aux conditions énoncées ou incluses par référence dans le document incluant toutes pièces jointes et annexes, les services détaillés dans le document, au(x) prix indiqué(s).

Title - Titre

ADVANCED TECHNOLOGIES AND TECHNIQUES TO LIMIT THE VOLUME, TOXICITY AND POLLUTANT LOADS OF PETROLEUM REFINERY EFFLUENTS AND THEIR POTENTIAL ADOPTION IN CANADA

ECCC Bid Solicitation No. /SAP No. – N^0 de la demande de soumissions ECCC / N^0 SAP 5000032582

Date of Bid solicitation (2017-09-12) – Date de la demande de soumissions (2017-09-12)

Bid Solicitation Closes (YEAR-MM-DD) - La demande de soumissions prend fin (AAAA-MM-JJ)

at – à 2:00 P.M. on – le October 12, 2017 Time Zone – Fuseau horaire Eastern Standard Time EST

F.O.B - F.A.B

Address Enquiries to - Adresser toutes questions à Josee.francoeur@canada.ca

Telephone No. – Nº de téléphone 819-938-3822

Fax No. – Nº de Fax

Delivery Required (YEAR-MM-DD) – Livraison exigée (AAAA-MM-JJ)

Destination - of Services / Destination des services

Security / Sécurité

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

Telephone No. - N° de téléphone

Fax No. - N° de Fax

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

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PART 1 - GENERAL INFORMATION

1. Introduction

The bid solicitation is divided into seven parts plus attachments and annexes, as follows:

- Part 1 General Information: provides a general description of the requirement;
- Part 2 Bidder Instructions: provides the instructions, clauses and conditions applicable to the bid solicitation:
- Part 3 Bid Preparation Instructions: provides bidders with instructions on how to prepare their bid:
- Part 4 Evaluation Procedures and Basis of Selection: indicates how the evaluation will be conducted, the evaluation criteria that must be addressed in the bid, and the basis of selection:
- Part 5 Certifications: includes the certifications to be provided;
- Part 6 Security and Other Requirements: includes specific requirements that must be addressed by bidders; and
- Part 7 Resulting Contract Clauses: includes the clauses and conditions that will apply to any resulting contract.

The Attachments include, a Confidentiality Agreement, the Information - Ontario Labour Legislation, Financial Bid Presentation Sheet, Mandatory Technical Criteria.

The Annexes include the Statement of Work, the Basis of Payment, the Security Requirements Checklist, Insurance Requirements, the Schedule of Milestones, and any other annexes.

2. Summary

- 2.1 The objective of this work is to obtain Information on the factors determining Canadian refineries' water use and effluent characteristics (volume, substances, concentrations and toxicity), and projected trends in these factors over the next 20 years.
- 2.2 Bidders must provide a list of names and other related information as required in accordance with Section 01 Provisions for the Integrity of the Standard Instructions.
- 2.3 For services requirements, bidders in receipt of a pension or a lump sum payment must provide the required information as detailed in article 3 of Part 2 of the bid solicitation.

3. 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 of receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.

PART 2 - BIDDER INSTRUCTIONS

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 PWGSC 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, 2014-09-25 Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

The standard instructions 2003 are modified as follows:

Under "Text" at 02:

Delete: "Procurement Business Number"

Insert: "Deleted"

At Section 02 Procurement Business Number

Delete: In its entirety **Insert:** "Deleted"

At Section 05 Submission of Bids, Subsection 05 (2d):

Delete: In its entirety

Insert: "send its bid only to Environment and Climate Change Canada (ECCC) as specified on

page 1 of the bid solicitation or to the address specified in the bid solicitation;"

At Section 06 Late Bids:

Delete: "PWGSC"

Insert: "Environment and Climate Change Canada"

At Section 07 Delayed Bids:

Delete: "PWGSC"

Insert: "Environment and Climate Change Canada"

At Section 08 Transmission by Facsimile, Subsection 08 (1):

Delete: In its entirety

Insert: "Bids may be submitted by facsimile if specified in the bid solicitation."

At Section 12 Rejection of Bid, Subsection 12 (1) a. and b.:

Delete: In their entirety

Insert: "Deleted"

At Section 17 Joint Venture, Subsection 17 (1) b.:

Delete: "the Procurement Business Number of each member of the joint venture,"

Insert: "Deleted"

At Section 20 Further Information, Subsection 20 (2):

Delete: In its entirety **Insert:** "Deleted"

At Section 05 Submission of Bids, Subsection 05 (4):

Delete: "sixty (60) days"

Insert: "one hundred and twenty (120) days"

The standard instructions 2004 are modified as follows:

Under "Text" at 02:

Delete: "Procurement Business Number"

Insert: "Deleted"

At Section 02 Procurement Business Number

Delete: In its entirety **Insert:** "Deleted"

At Section 07 Rejection of Bid, Subsection 07 (1) a. and b.:

Delete: In their entirety

Insert: "Deleted"

At Section 10 Joint Venture, Subsection 10 (1b):

Delete: "the Procurement Business Number of each member of the joint venture,"

Insert: "Deleted"

2. Submission of Bids

Bids must be submitted to Environment and Climate Change Canada (ECCC) at the address and by the date, time and place indicated on page 1 of the bid solicitation.

3. Former Public Servant - Competitive Bid

Contracts awarded to former public servants (FPS) in receipt of a pension or of a lump sum payment must bear the closest public scrutiny, and reflect fairness in the spending of public funds. In order to comply with Treasury Board policies and directives on contracts awarded to FPS, bidders must provide the information required below before contract award. If the answer to the questions and, as applicable the information required have not been received by the time the evaluation of bids is completed, Canada will inform the Bidder of a time frame within which to provide the information. Failure to comply with Canada's request and meet the requirement within the prescribed time frame will render the bid non-responsive.

Definitions

For the purposes of this clause, "former public servant" is any former member of a department as defined in the *Financial Administration Act*, R.S., 1985, c. F-11, a former member of the Canadian Armed Forces or a former member of the Royal Canadian Mounted Police. A former public servant may be:

a. an individual;

- b. an individual who has incorporated;
- c. a partnership made of former public servants; or
- d. a sole proprietorship or entity where the affected individual has a controlling or major interest in the entity.

"lump sum payment period" means the period measured in weeks of salary, for which payment has been made to facilitate the transition to retirement or to other employment as a result of the implementation of various programs to reduce the size of the Public Service. The lump sum payment period does not include the period of severance pay, which is measured in a like manner.

"pension" means a pension or annual allowance paid under the *Public Service Superannuation Act* (PSSA), R.S., 1985, c.P-36, and any increases paid pursuant to the *Supplementary Retirement Benefits Act*, R.S., 1985, c.S-24 as it affects the PSSA. It does not include pensions payable pursuant to the *Canadian Forces Superannuation Act*, R.S., 1985, c.C-17, the *Defence Services Pension Continuation Act*, 1970, c.D-3, the *Royal Canadian Mounted Police Pension Continuation Act*, 1970, c.R-10, and the *Royal Canadian Mounted Police Superannuation Act*, R.S., 1985, c.R-11, the *Members of Parliament Retiring Allowances Act*, R.S., 1985, c.M-5, and that portion of pension payable to the *Canada Pension Plan Act*, R.S., 1985, c.C-8.

Former Public Servant in Receipt of a Pension

As per page 7, definitions, is the Bidder a FPS in receipt of a pension? **Yes** () **No** ()

If so, the Bidder must provide the following information, for all FPS in receipt of a pension, as applicable:

- a. name of former public servant;
- b. date of termination of employment or retirement from the Public Service.

By providing this information, Bidders agree that the successful Bidder's status, with respect to being a former public servant in receipt of a pension, will be reported on departmental websites as part of the published proactive disclosure reports in accordance with Contracting Policy Notice: 2012-2 and the Guidelines on the Proactive Disclosure of Contracts.

Work Force Adjustment Directive

Is the Bidder a FPS who received a lump sum payment pursuant to the terms of the Work Force Adjustment Directive? **Yes** () **No** ()

If so, the Bidder must provide the following information:

- a. name of former public servant;
- b. conditions of the lump sum payment incentive;
- c. date of termination of employment;

- d. amount of lump sum payment;
- e. rate of pay on which lump sum payment is based;
- f. period of lump sum payment including start date, end date and number of weeks;
- g. number and amount (professional fees) of other contracts subject to the restrictions of a work force adjustment program.

For all contracts awarded during the lump sum payment period, the total amount of fees that may be paid to a FPS who received a lump sum payment is \$5,000, including Applicable Taxes.

4. Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than three (3) 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.

5. 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.

6. Basis for Canada's Ownership of Intellectual Property

The Crown has determined that any intellectual property arising from the performance of the Work under the Contract will vest in Canada, on the following grounds:

- 6.4 Where the main purpose of the Crown Procurement Contract, or of the deliverables contracted for, is:
- 6.4.1 To generate knowledge and information for public dissemination;

PART 3 - BID PREPARATION INSTRUCTIONS

1. Bid Preparation Instructions

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

Section I: Technical Bid (1 electronic copy),

Section II: Financial Bid (1 electronic copy),

Section III: Certifications (1 electronic copy)

Section IV: Additional Information (1 electronic copy)

Prices must appear in the financial bid 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) format;
- (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:

Section I: Technical Bid

In their technical bid, bidders should demonstrate their understanding of the requirements contained in the bid solicitation and explain how they will meet these requirements. Bidders should demonstrate their capability and describe their approach in a thorough, concise and clear manner for carrying out the work.

The technical bid should address clearly and in sufficient depth the points that are subject to the evaluation criteria against which the bid will be evaluated. Simply repeating the statement contained in the bid solicitation is not sufficient. In order to facilitate the evaluation of the bid, Canada requests that bidders address and present topics in the order of the evaluation criteria under the same headings. To avoid duplication, bidders may refer to different sections of their bids by identifying the specific paragraph and page number where the subject topic has already been addressed.

Section II: Financial Bid

- **1.1** Bidders must submit their financial bid in accordance with the Financial Bid Presentation Sheet as seen in attachment 1 to part 3. The total amount of Applicable Taxes must be shown separately.
- **1.2** Bidders must submit their financial bid in Canadian funds and in accordance with the Financial Bid Presentation Sheet as seen in attachment 1 to part 3. The total amount of Applicable Taxes must be shown separately.
- **1.3** Bidders must submit their price and, rates, FOB destination; Canadian customs duties and excise taxes included, as applicable; and Applicable Taxes excluded.

1.4 Price Breakdown

In their financial bid, the bidders are requested to provide a detailed breakdown of the price for the following elements for performance of the Work, as applicable:

- (a) Professional fees: For each individual and (or) labour category to be assigned to the Work, the bidders should indicate: i) the firm hourly rate or the firm daily rate, inclusive of overhead and profit; and ii) the estimated number of hours or days, as applicable. The bidders should indicate the number of hours in one working day.
- (b) Equipment (if applicable): The bidders should specify each item required to complete the Work and provide the pricing basis of each one, Canadian customs duty and excise taxes included, as applicable.
- (c) Materials and Supplies (if applicable): The bidders should identify each category of materials and supplies required to complete the Work and provide the pricing basis. The Bidder should indicate, on a per category basis, whether the items are likely to be consumed during the performance of any resulting contract.
- (d) Travel and Living Expenses (if applicable): The bidders should indicate the number of trips and the number of days for each trip, the cost, destination and purpose of each journey, together with the basis of these costs without exceeding the meal, private vehicle and incidental expenses provided in Appendices B, C and D of the *National Joint Council Travel Directive* and with the other provisions of the directive referring to "travellers", rather than those referring to "employees".
- (e) Subcontracts (if applicable): The bidders should identify all of the proposed subcontractors and provide in their financial bid for each one a price breakdown.
- (f) Other Direct Charges (if applicable): The bidders should identify all of the categories of other direct charges anticipated, such as long distance communications and rentals, providing the pricing basis for each and explaining the relevance to the work described in Part 7 of the bid solicitation.
- (g) Applicable Taxes: The bidders should indicate the Applicable Taxes separately.
- **1.5** Bidders should include the following information in their financial bid:
- (a) Their legal name; and

(b) The name of the contact person (including this person's mailing address, phone and facsimile numbers and email address) authorized by the Bidder to enter into communications with Canada with regards to their bid; and any contract that may result from their bid.

Section III: Certifications

Bidders must submit the certifications required under Part 5.

ATTACHMENT 1 TO PART 3 - FINANCIAL BID

The tenderer must complete the presentation sheet of the financial bids and include in its financial bid when completed. At the very least, the bidder must meet this financial bid Format Sheet by including in its financial bid for the periods indicated below its rate for each deliverables

ECCC wishes to establish a contract until March 31, 2018

The cost quotation must identify the level of effort and estimated cost for each task in the Statement of Work

No.	Description	Firm, all – inclusive per diem (a)	Estimated Level of Effort (b)	Extended Cost (c) (a+b)
1	Task # 1			\$
2	Task # 2			\$
3	Task # 3			\$
4	Task # 4			\$
5			Total (c)	\$

	Taxes: \$	
Estimated Travel:	\$	

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

1.1 Evaluation Procedures highest technical merit with the evaluated price within the budget

The proposal should be less than 20 pages in length, excluding any other materials (résumés, any supporting information).

The proposal must meet the mandatory requirements below and include a detailed description of the workplan describing how the Contractor would carry out the study to achieve the objectives and fulfill the tasks set forth in sections V and VI. The proposal must also identify each member of the project team, their qualification and experience. Any relevant information to enable the Departmental Representative to adequately score the proposal based on the criteria listed in Appendix A should be included.

Proposals will be assessed against the requirements listed below. Proposals that do not meet all of the mandatory criteria or that do not achieve the minimum number of points required for each section of the rated criteria will be deemed non-compliant.

1.2 Evaluation Method

- 1. To be declared responsive, a bid must:
 - a. comply with all the requirements of the bid solicitation;
 - b. meet all mandatory technical evaluation criteria; and
 - c. obtain the required minimum of **43 points overall** for the technical evaluation criteria which are subject to point rating. The rating is performed on a scale of **60**.
- 2. Bids not meeting (a) or (b) or (c) will be declared non responsive. The responsive bid with the highest number of points will be recommended for award of a contract, provided that the total evaluated price does not exceed the budget available for this requirement.

2.1 Mandatory Requirement

M-1	The project team shall be comprised of at least one qualified engineer with relevant qualification and experience in the treatment of effluents from petroleum refineries.	
M-2	The project team shall be comprised of at least one member with at least 5 years of experience on projects concerning the treatment of refinery effluents and/or water use by refineries.	

2.2 Rated Requirement

Point Rated Technical Criteria

The proposal will be evaluated against the criteria presented below. Proposals that do not obtain a minimum of 43/60 points will be rejected. If no acceptable bids are received, the Minister reserves the right to not award the contract.

	Rated Criteria	Maximum Score	Score
1. UNDERSTANDING OF THE REQUEST FOR PROPOSAL	R1. Does the proposal indicate a clear and logical understanding of the objective and Statement of Work?	Max. 5 points	
(MAX. 5 POINTS) MINIMUM REQUIRED: 3 POINTS	The proposal clearly demonstrates an understanding of the objectives and statement of work in a logical fashion.	5	
	The proposal demonstrates an understanding of the objectives and statement of work, but not in a clear and logical manner.	3	
	The proposal does not demonstrate an understanding of the objective and statement of work at all.	0	
2. WORK PLAN,	R2. A) Does the work plan identify milestones and how the	A) Max. 5	
APPROACH &	Contractor will satisfy the requirements in the Statement of	points	
METHODOLOGY	Work? (partial points will be awarded in R2 A) as indicated		
(MAX. 20 POINTS)	in this section)		
MINIMUM REQUIRED			
FOR R2A): 5 POINTS AND	The proposal clearly identifies the milestones,	5	
R2 B): 10 POINTS	timelines and deliverables for all of the requirements in the Statement of Work.		
	The proposal is missing information related to the milestones, timelines and deliverables for some of the requirements identified in the Statement of Work.	2.5	
	The proposal is missing information related to the milestones, timelines and deliverables for many of the requirements identified in the Statement of Work.	0	
	the requirements identified in the Statement of Work.		
	R2. B) Are the presented approach and methodology well-defined, logical and adequate for each of the tasks in the Statement of Work? (partial points will be awarded in R2 B) as indicated in this section)	B) Max. 15 points	
	All of the three points below are satisfied:	15	

	 (1) The presented approach and methodology are well-defined and logical (e.g. potential data sources and strategies to obtain the information are clearly described). (2) The presented approach and methodology are adequate (e.g. the approach and methodology allow for meeting the objectives; team members' time allocated to each task is based on their qualification and experience, etc.). (3) Potential challenges are clearly identified and potential solutions to challenges are addressed. Any one of the points above is not satisfied, but the remaining two points are satisfied. 	10	
	Any two of the points above are not satisfied, but the remaining one point is satisfied.	5	
	None of the points above is satisfied.	0	
3. PROJECT TEAM QUALIFICATION AND EXPERIENCE (MAX. 35 POINTS) R3 A): MINIMUM 5 POINTS REQUIRED	R3. A) Do the project team's qualifications make it well suited to complete the assignment? Does the project team is comprised of engineers qualified in an engineering specialty relevant the project? 5 points per team member that is a qualified engineer.	A) Max 5 points.	
R3 B): MINIMUM 15 POINTS REQUIRED AND 12.5 POINTS MUST BE MADE BY AT LEAST ONE MEMBER	R3. B) Does the project team's experience make it well suited to complete the assignment? How many total years of experience does the project team (including the project manager) have on projects concerning the treatment of refinery effluents and water use by refineries? Experience must be clearly described in the proposal. To pass R3 B) 12.5 points must be contributed by at least one team member (who can be the project manager). If this condition is not met, the proposal will be deemed noncompliant with R3 B). 2.5 points per year	B) Max. 20 points.	

R3 C): MINIMUM 5 POINTS REQUIRED	R3. C) Does the project manager have the appropriate experience and skill set to manage projects of this nature? Experience must be clearly described in the proposal. 2.5 points per year	C) Max. 10 points.	
TOTAL POSSIBLE POINTS	An overall score of 43/60 is also required	60 (minimum required: 43/60)	

2.3 Financial Criteria

Met	Not Met
	Met

PART 5 - CERTIFICATIONS

Bidders must provide the required certifications and associated 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 in carrying out any of its obligations under the Contract, 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 may render the bid non-responsive or constitute a default under the Contract.

Certifications Required Precedent to Contract Award

1. Integrity Provisions - Associated Information

By submitting a bid, the Bidder certifies that the Bidder and its Affiliates are in compliance with the provisions as stated in Section 01 Integrity Provisions - Bid of Standard Instructions 2003. The associated information required within the Integrity Provisions will assist Canada in confirming that the certifications are true.

Additional Certifications Required Precedent to Contract Award

The certifications listed below should be completed and submitted with the bid but may be submitted afterwards. If any of these required certifications 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 comply with the request of the Contracting Authority and to provide the certifications within the time frame provided will render the bid non-responsive.

2. Status and Availability of Resources

The Bidder certifies that, should it be awarded a contract as a result of the bid solicitation, every individual proposed in its bid will be available to perform the Work as required by Canada's representatives and at the time specified in the bid solicitation or agreed to with Canada's representatives. If for reasons beyond its control, the Bidder is unable to provide the services of an individual named in its bid, the Bidder may propose a substitute with similar qualifications and experience. The Bidder must advise the Contracting Authority of the reason for the substitution and provide the name, qualifications and experience of the proposed replacement. For the purposes of this clause, only the following reasons will be considered as beyond the control of the Bidder: death, sickness, maternity and parental leave, retirement, resignation, dismissal for cause or termination of an agreement for default.

If the Bidder has proposed any individual who is not an employee of the Bidder, the Bidder certifies that it has the permission from that individual to propose his/her services in relation to the Work to be performed and to submit his/her résumé to Canada. The Bidder must, upon request from the Contracting Authority, provide a written confirmation, signed by the individual,

of the permission given to the Bidder and of his/her availability. Failure to comply with the request may result in the bid being declared non-responsive.

2.1 Education and Experience

PWGSC SACC Manual clause A3010T 2010-08-16 Education and Experience

2.2 Former Public Servant in Receipt of a Pension

As per page 7, definitions, is the Bidder a FPS in receipt of a pension? Yes () No ()

If so, the Bidder must provide the following information, for all FPS in receipt of a pension, as applicable:

- c. name of former public servant;
- d. date of termination of employment or retirement from the Public Service.

By providing this information, Bidders agree that the successful Bidder's status, with respect to being a former public servant in receipt of a pension, will be reported on departmental websites as part of the published proactive disclosure reports in accordance with Contracting Policy Notice: 2012-2 and the Guidelines on the Proactive Disclosure of Contracts.

Work Force Adjustment Directive

Is the Bidder a FPS who received a lump sum payment pursuant to the terms of the Work Force Adjustment Directive? **Yes** () **No** ()

If so, the Bidder must provide the following information:

- h. name of former public servant;
- i. conditions of the lump sum payment incentive;
- i. date of termination of employment;
- k. amount of lump sum payment;
- I. rate of pay on which lump sum payment is based;
- m. period of lump sum payment including start date, end date and number of weeks;
- number and amount (professional fees) of other contracts subject to the restrictions of a work force adjustment program.

For all contracts awarded during the lump sum payment period, the total amount of fees that may be paid to a FPS who received a lump sum payment is \$5,000, including Applicable Taxes.

Signed		
Date	 	

PART 6 - SECURITY AND OTHER REQUIREMENTS

1.0 Security Requirement

There are no security requirement.

2.0 Insurance Requirements

N/A

PART 7 - RESULTING CONTRACT

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

TITLE: ADVANCED TECHNOLOGIES AND TECHNIQUES TO LIMIT THE VOLUME, TOXICITY AND POLLUTANT LOADS OF REFINERY EFFLUENTS AND THEIR POTENTIAL ADOPTION IN CANADA

1. Statement of Work

The Contractor must perform the Work in accordance with the Statement of Work at Annex A.

2. Standard Clauses and Conditions

All clauses and conditions identified in the Contract by number, date and title are set out in the PWGSC 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.

2.1 General Conditions

2010B 2014-09-25, General Conditions - Professional Services (Medium Complexity), as modified below, apply to and form part of the Contract.

General conditions 2010B is modified as follows:

At Section 12 Transportation Costs

Delete: In its entirety **Insert:** "Deleted"

At Section 13 Transportation Carriers" Liability

Delete: In its entirety. **Insert:** "Deleted"

At Section 18, Confidentiality:

Delete: In its entirety **Insert:** "Deleted"

Insert Subsection: "35 Liability"

"The Contractor is liable for any damage caused by the Contractor, its employees, subcontractors, or agents to Canada or any third party. Canada is liable for any damage caused by Canada, its employees or agents to the Contractor or any third party. The Parties agree that no limitation of liability or indemnity provision applies to the Contract unless it is specifically incorporated in full text in the Articles of Agreement. Damage includes any injury to persons (including injury resulting in death) or loss of or damage to property (including real property) caused as a result of or during the performance of the Contract."

2.2 Supplemental General Conditions

The following supplemental general conditions apply to and form part of the Contract:

4007, 2010-08-16, Canada to own Intellectual Property Rights in Foreground

3. Security Requirement

3.1 N/A

4. Term of Contract

4.1 Period of the Contract

The period of the Contract is from contract award to March 31, 2018 inclusive.

4.2 Option Period

N/A

4.3 Transition Period

The Contractor acknowledges that the nature of the services provided under the Contract requires continuity and that a transition period may be required at the end of the Contract. The Contractor agrees that Canada may, at its discretion, extend the Contract by a period of 5 days under the same conditions to ensure the required transition. The Contractor agrees that, during the extended period of the Contract, it will be paid in accordance with the applicable provisions as set out in the Basis of Payment.

The Contracting Authority will advise the Contractor of the extension by sending a written notice to the Contractor at least 5 days calendar days before the contract expiry date. The extension will be evidenced for administrative purposes only, through a contract amendment.

5. Authorities

5.1 Contracting Authority

The Contracting Authority for the Contract is:

Name: Josée Francoeur Title: Contracting Officer

Environment and Climate Change Canada Procurement and Contracting Division Address: 200 Sacré-Coeur Blvd.,

Gatineau. QC

Telephone: 819-938-3822 Facsimile: 819-938-4848

E-mail address: josee.francoeur@canada.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.

5.2 Technical Authority (at contract award)
The Technical Authority for the Contract is:
Name: Title: Organization: Address:
Telephone: Facsimile: E-mail address:
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.
5.3 Contractor's Representative (at contract award)
Name: Title: Organization: Address:

6. Proactive Disclosure of Contracts with Former Public Servants

By providing information on its status, with respect to being a former public servant in receipt of a *Public Service Superannuation Act* (PSSA) pension, the Contractor has agreed that this information will be reported on departmental websites as part of the published proactive disclosure reports, in accordance with Contracting Policy Notice: 2012-2 of the Treasury Board Secretariat of Canada.

7. Payment

Telephone: _ Facsimile: _ E-mail address:

7.1 Basis of Payment

7.2 Limitation of Expenditure	
(a) Canada's total liability to the Contractor under the Contract must not exceed \$ Customs duties are included and the Applicable Taxes are extra.	<u> </u>
(b) No increase in the total liability of Canada or in the price of the Work resulting from a design changes, modifications or interpretations of the Work, will be authorized or pathe Contractor unless these design changes, modifications or interpretations have be approved, in writing, by the Contracting Authority before their incorporation into the Work. The Contractor must not perform any work or provide any service that would re in Canada's total liability being exceeded before obtaining the written approval of the Contracting Authority. The Contractor must notify the Contracting Authority in writing to the adequacy of this sum:	id to en esul
(i) when it is 75 percent committed, or	
(ii) four (4) months before the contract expiry date, or	
(iii) as soon as the Contractor considers that the contract funds provided are inadequate for the completion of the Work, whichever comes first.	
(c) If the notification is for inadequate contract funds, the Contractor must provide to the Contracting Authority a written estimate for the additional funds required. Provision of such information by the Contractor does not increase Canada's liability.	f
7.3 Time Verification C0711C 2008-05-12 Time Verification	
8. Invoicing Instructions	
8.1 Milestone Payments H3010C, 2010-01-11 Milestone Payments	
8.1.1 The Contractor must submit invoices in accordance with Annex "B" Basis of Payme	nts.

9. Certifications

9.1 Compliance

Compliance with the certifications provided by the Contractor in its bid is a condition of the Contract and subject to verification by Canada during the term of the Contract. If the Contractor

does not comply with any certification or 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.

10. Applicable Laws

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

11. 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) 4007 Supplemental General Conditions, 2010-08-16;
- (c) 2010B General Conditions Professional Services (Medium Complexity) 2014-09-25 as modified;
- (d) Annex A, Statement of Work;
- (e) Annex B, Basis of Payment;
- (f) the Contractor's bid dated _____, as clarified on _____ or as amended on _____

ANNEX A STATEMENT OF WORK

CONFIDENTIALITY

I. CONFIDENTIALITY

It is understood and agreed that the Contractor shall, during and after the effective period of the ensuing contract, treat as confidential and not divulge, unless authorized in writing by the Departmental Representative, any information obtained in the course of the performance of the ensuing contract.

The Contractor shall maintain the confidentiality of all facility-specific information obtained in the course of the ensuing contract that has been identified as confidential. Confidential information shall not be included in reports, and must be generalized sufficiently such that the data cannot be identified with an individual facility. Information which was submitted as confidential but which, due to aggregation, cannot be related to a specific facility may be included in the main report.

Information that a facility requests to be kept confidential shall be compiled in the Excel spreadsheet (refineries' individual profiles) and under separate cover (for additional information that doesn't belong to the refineries' individual profiles) and labelled confidential within the meaning of the *Access to Information Act*.

Any failure of the Contractor to respect the confidentiality obligations is a default of the Contractor for which the Minister may terminate the contract.

II. USE / DESTRUCTION / RETURN OF INFORMATION

The information and documentation provided to the Contractor by the Departmental Representative are to be used for the purpose of this contract only and shall not be used for other purposes unless duly authorized by the Departmental Representative. After completion of the contract or in the event of contract termination and upon request, the supplied information shall be destroyed in a manner deemed appropriate by the Departmental Representative. The Contractor shall send a letter to the Departmental Representative acknowledging the disposition of the information.

III. BACKGROUND

The *Petroleum Refinery Liquid Effluent Regulations* and guidelines set discharge limits on the release of conventional pollutants in refinery effluents and storm waters, such as oil and grease, phenols, sulfide, ammonia nitrogen, total suspended matter and pH, from sources located on the refineries' property. The discharge limits are production based. These regulations came into force on November 1, 1973 and apply to refineries that began operations on or after that date. Refineries that began operations before are subject to the *Guidelines Respecting the Quality of Liquid Effluent from Existing Petroleum Refineries* published simultaneously as the regulations.

In May 2009, the Commissioner of the Environment and Sustainable Development (CESD) tabled a report¹ that reviewed Environment and Climate Change Canada's administration of the pollution prevention provisions of the *Fisheries Act*. Through this process, the CESD made recommendations in five areas, one of which was that Environment and Climate Change Canada review existing *Fisheries Act* regulations and guidelines to ensure that they are adequate, up to date, relevant and enforceable. To meet this commitment, Environment and Climate Change Canada mandated a review² of the *Petroleum Refinery Liquid Effluent Regulations* and associated guidelines in 2010.

In order to inform recommendations on these regulations and guidelines, a review of advanced technologies and techniques to limit the volume, toxicity and pollutant loads of refinery effluents and storm waters is needed, as well as an assessment of the potential improvement of current refineries' performance from the implementation of such advanced technologies and techniques along with a discussion of associated constraints and opportunities.

IV. SCOPE

Refinery Sector

The contract shall focus on establishments engaged in refining crude petroleum (oil or bitumen) by processes such as cracking and distillation. Upgrader-refinery complexes are included in the scope of this contract. However, upgraders integrated with oil sands extraction activities are excluded.

Technologies and techniques

The report shall focus on the identification and assessment of technologies and techniques commercially available in the last 10 years in Canada and internationally for refinery operations. The report shall also include technologies and techniques that are expected to become commercially available over the next 10 years. Technologies and techniques to reduce, recycle and treat refinery effluents and storm water are included within the scope, including zero-discharge technologies. Technologies and techniques that can be applied upstream in the process before the wastewater treatment system are also part of the scope.

V. OBJECTIVES:

The objectives of the Contract are to obtain:

1. Information on the factors determining Canadian refineries' water use and effluent characteristics (volume, substances, concentrations and toxicity), and projected trends in these factors over the next 20 years.

¹ http://www.oag-bvg.gc.ca/internet/English/parl cesd 200905 01 e 32511.html

² Gentsia Consulting. 2010. Status report and technologies for the management of liquid effluents in the petroleum refining and bitumen upgrading sectors. 272 pages and Appendices.

- 2. Updated information on refineries' individual profile of water use, effluent characteristics (volume, substances, concentrations and toxicity) and relevant factors (e.g. effluent treatment technologies in place and their performance, provincial requirements, etc.).
- 3. Information and a comparative analysis of advanced technologies and techniques to limit the volume, toxicity and pollutant loads of refinery effluents and storm waters, as well as an assessment of current status and trends in their adoption in Canada compared to the United States and Europe, along with an analysis of key drivers and barriers to their adoption in Canada.
- 4. Assessment of the potential improvement of refineries' current environmental performance from different scenarios of level of adoption of advanced technologies and techniques (e.g. status quo, low, low-medium, medium and high levels), along with a discussion of key opportunities and constraints, including potential ways to overcome these constraints.

VI. WORK DESCRIPTION:

Task 1 Identify and describe the factors determining water use and effluent characteristics (volume, substances, concentrations and toxicity) of Canadian refineries and projected trends in these factors over the next 20 years

As part of this task, the Contractor will:

- 1.1 Identify and describe the factors determining Canadian refineries' water use and effluent characteristics (volume, substances, concentrations and toxicity):
 - 1.1.1 As applicable, a consideration will be given to crude slates, refineries' configurations, product slates (including quality specifications), cooling, steam generation and washing processes, as well as storm water and effluent management technologies and techniques.
- 1.2 Identify and describe any projected trends in the factors identified in 1.1 and underlying causes.
- 1.3 Document the relationships between water use, effluent volume and refined oil production.

Task 2: Update refineries' individual profile of water use, effluent characteristics (volume, substances, concentrations and toxicity) and relevant factors

As part of this task, the Contractor will:

- 2.1 Obtain information and document refineries' individual profile of water use and effluent characteristics (volume, substances, concentrations and toxicity).
- 2.2 Update or add, as needed, information pertaining to the factors determining water use and effluent characteristics at individual refineries, including but not limited to:
 - 2.2.1 Any factors identified in task 1
 - 2.2.2 Refineries' related configurations, processes and activities
 - 2.2.3 Provincial controls on water use and effluent and storm water management
 - 2.2.4 Industry standards or initiatives related to effluent and storm water management

Task 3: Review and compare advanced technologies and techniques to limit the volume, toxicity and pollutant loads of refinery effluents

As part of this task, the Contractor will:

- 3.1 Identify and describe existing and potential advanced technologies and techniques to limit the volume, toxicity and pollutant loads of refinery effluents and storm waters in Canada and internationally for refinery operations.
 - 3.1.1 As applicable, the description of these technologies and techniques will include information on:
 - 3.1.1.1 Substance-level removal performance (i.e. achievable effluent concentration and load) for, but not limited to:
 - Conductivity (if available)
 - Dioxins (as applicable)
 - Heavy metals
 - Hydrocarbon compounds
 - Oil and grease
 - pH
 - Phenols
 - Salts
 - Sulfide
 - Total ammonia nitrogen
 - Total suspended matter
 - Whole effluent acute toxicity (if available)
 - Whole effluent chronic toxicity (if available)
 - 3.1.1.2 Cost (capital and operational)
 - 3.1.1.3 Technical requirements
 - 3.1.1.4 Maintenance requirements
 - 3.1.1.5 Operating conditions (e.g. type of crude, climate, etc.)
 - 3.1.1.6 Technologies and techniques' maturity (e.g. number of years they are implemented in refineries or in other industrial sectors)
 - 3.1.1.7 Capital turnover rate (e.g. equipment lifetime)
 - 3.1.1.8 Other environmental considerations (e.g., associated waste generation and hazard, fuel and energy consumption, air emissions, etc.)
 - 3.1.1.9 Any other factors relevant to inform their adoption
- 3.2 Perform a comparative analysis of these technologies and techniques based on the factors above and any additional ones identified by the Contractor
- 3.3 Assess and compare current status and trend in the adoption of these advanced technologies and techniques in Canada compared to the United States and Europe, including:
 - 3.3.1 Identifying the Canadian refineries that are currently using advanced technologies and techniques and why;
- 3.4 Identify and describe key drivers and barriers to the adoption of such advanced technologies and techniques in Canada
- Task 4: Assess the potential environmental improvement of refineries' current environmental performance associated with different scenarios of level of adoption of advanced technologies and techniques

As part of this task, the Contractor will:

- 4.1 Assess different scenarios of level of adoption of advanced technologies and techniques by Canadian refineries, including but not limited to:
- 4.1.1 Different scenarios such as status quo and a corresponding low, low-medium, medium and high level of adoption of advanced technologies and techniques by refineries.
- 4.1.2 Economical and technical implications (e.g., incremental costs, applicability, time to implement), as well as the resulting incremental improvement of the sector's performance in terms of water use and effluent volume, toxicity and pollutant loads.
- 4.2 Determine the substances and their effluent discharge limits that would be associated with the different scenarios
- 4.3 Assess and discuss any key constraints and opportunities, including potential ways to overcome these constraints.

GENERAL NOTES FOR THE TASKS:

The tasks above are not necessarily exhaustive. The consultant is encouraged to provide any additional information discovered during the course of this work that is deemed relevant in fulfilling the objectives of this contract.

VII. DOCUMENTS TO BE PROVIDED TO THE CONTRACTOR

The Departmental Representative will provide the Contractor with the following document:

- Gentsia Consulting. 2010. Status report and technologies for the management of liquid effluents in the petroleum refining and bitumen upgrading sectors. 272 pages and Appendices.
 - This report describes the industry, the characteristics of refinery effluents and storm waters, and an overview of treatment systems currently used by Canadian and American plants. It also provides a detailed review of the regulatory regimes related to the control of refinery effluents in place in Canada and the United States.

VIII. DELIVERABLES

Under the guidance of the Departmental Representative, the Contractor is required to produce a report in successive steps that include the following:

Deliverable #1: Table of contents and methodology

Deliverable #2: Draft Partial Report that covers Tasks 1 and 2 and an Excel spreadsheet with the information on refineries' individual profiles.

Deliverable #3: Draft Full Report that covers all tasks (Tasks 1 to 4)

 Detailed report that includes considerations of any comments provided on the Draft Partial Report and Excel spreadsheet under deliverable #2.

Deliverable #4: Draft Final Report that covers all tasks (Tasks 1 to 4)

 Detailed report that includes considerations of any comments provided on the Draft Full Report

Deliverable #5: Final Report (Tasks 1 to 4)

- The final report must reflect the requirements outlined in Tasks 1 to 4, and address any comments provided on previous reports.
- The final report must be provided free of confidential business information (CBI) (i.e., where individual company information is not revealed or cannot be revealed through deduction)
 - Information which was submitted as confidential but which, due to aggregation, cannot be related to a specific facility may be included in the main report. This report is intended to be made available as noted under the Confidentiality clause in section X.
- Along with the Final report, must be provided as well:
 - Survey results (if applicable), all related research material, raw data spreadsheets, databases and records of discussion used for the delivery of this Contract.
 - All of the background material and information provided to the Contractor by the Departmental Representative, and/or any other material used to develop the study.
 - Information that a facility requests to be kept confidential shall be compiled under separate cover and labelled confidential within the meaning of the Access to Information Act.

Deliverable #6: Presentation

 The Contractor is required to prepare and give a presentation (max. 30 minutes, excluding the question period) on the final results of the study with Environment and Climate Change Canada officials and any other persons designated by the Departmental Representative. The presentation will be delivered by teleconference/webinar or face-toface if the Contractor is located in the Gatineau/Ottawa area.

GENERAL NOTES FOR THE DELIVERABLES:

All reports and data shall be written in English. The final report must include an executive summary in both French and English. The consultant shall report all the sources of data and information. Tables and diagrams should be used to facilitate the presentation and summary of key findings and data analysis. Methodologies and calculations must be described in full or referenced and are subject to approval by the Departmental Representative. A complete list of referenced material is required for all the elements of this study. Uncertainties should be identified and their impacts on the results and conclusions explained. Moreover, the Contractor shall provide an explanation of how the comments on previous deliverables have been addressed in the following deliverables. This can be done by providing two versions of each deliverable, one with the changes tracked and the others with no track changes.

All reports and data shall be submitted in PDF and Microsoft Word/Excel 2010 format as applicable.

Information that a facility requests to be kept confidential shall be compiled under separate cover and labelled confidential within the meaning of the *Access to Information Act*.

As indicated in section X, no copies (hard or electronic) of confidential documents/information are to be retained by the Contractor.

IX. SCHEDULE

DELIVERABLES AND ACTIVITIES	DATES
Project Initiation: kick off meeting with the Contractor to distribute the necessary information and discuss any questions	1 week after the Contract is awarded
Deliverable #1: Table of contents and methodology	Max. 4 weeks after the Contract is awarded
Deliverable #2: Draft Partial Report and the Excel spreadsheet with the updated information on refineries' individual profiles (Tasks 1 & 2)	Max. of 12 weeks after the Contract is awarded
Deliverable #3: Draft Full Report (Tasks 1 to 4)	Not later than February 2, 2018
Deliverable #4: Draft Final Report (Tasks 1 to 4)	Not later than March 2, 2018
Deliverable #5: Final Report	Not later than March 16, 2018
Deliverable #6: Presentation of the contracts' findings by teleconference/webinar or face-to-face at ECCC's office	Not later than March 16, 2018

Regular feedback (at least every two weeks) through email, and/or phone calls must be maintained between the Contractor and the Departmental Representative.

X. ACCEPTANCE OF DELIVERABLES

All discussion papers, reports and correspondence produced by the Contractor will be subject to review by the Departmental Representative.

All work is to be performed by the project team identified in the proposal and completed to the satisfaction of the Departmental Representative.

The Contractor shall maintain communications with the Departmental Representative. No work shall be undertaken which is additional or supplemental to or in substitution of the work specified, unless approved in advance.

ANNEX B BASIS OF PAYMENT

(to be completed at contract award)