

RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:
Public Works and Government Services Canada
Bid Receiving Unit
Suite 201, 1800 11th Ave
Regina
Sask.
S4P 0H8
Bid Fax: (306) 780-5601

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 Life Cycle Assessment Canola	
Solicitation No. - N° de l'invitation 01580-130141/A	Date 2012-09-10
Client Reference No. - N° de référence du client 01580-130141	
GETS Reference No. - N° de référence de SEAG PW-\$REG-162-4543	
File No. - N° de dossier REG-2-35061 (162)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2012-09-26	Time Zone Fuseau horaire Central Standard Time CST
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: Glover, Cindy	Buyer Id - Id de l'acheteur reg162
Telephone No. - N° de téléphone (306) 780-5605 ()	FAX No. - N° de FAX (306) 780-5601
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: DEPARTMENT OF AGRICULTURE AND AGRI-FOOD 51 CAMPUS DRIVE SASKATOON Saskatchewan S7N 5A8 Canada	

Instructions: See Herein

Instructions: Voir aux présentes

Vendor/Firm Name and Address

**Raison sociale et adresse du
fournisseur/de l'entrepreneur**

Issuing Office - Bureau de distribution

Regina (REG)
Suite 201, 1800 11th Avenue
Regina
Sask.
S4P 0H8

Delivery Required - Livraison exigée	Delivery Offered - Livraison proposée
Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur	
Telephone No. - N° de téléphone Facsimile No. - N° de télécopieur	
Name and title of person authorized to sign on behalf of Vendor/Firm (type or print) Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)	
Signature	Date

TABLE OF CONTENTS

PART 1 - GENERAL INFORMATION

1. Security Requirement
2. Statement of Work
3. Debriefings

PART 2 - BIDDER INSTRUCTIONS

1. Standard Instructions, Clauses and Conditions
2. Submission of Bids
3. Enquiries - Bid Solicitation
4. Applicable Laws

PART 3 - BID PREPARATION INSTRUCTIONS

1. Bid Preparation Instructions

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

1. Evaluation Procedures
2. Basis of Selection

PART 5 - CERTIFICATIONS

1. Code of Conduct Certifications - Certifications Required Precedent to Contract Award
2. Certifications Precedent to Contract Award and Certifications Required with the Bid

PART 6 - RESULTING CONTRACT CLAUSES

1. Security Requirement
2. Statement of Work
3. Standard Clauses and Conditions
4. Term of Contract
5. Authorities
6. Payment
7. Invoicing Instructions
8. Certifications
9. Applicable Laws
10. Priority of Documents
11. Insurance

List of Annexes:

- Annex A Statement of Work
Annex B Basis of Payment

PART 1 - GENERAL INFORMATION

1. Security Requirement

There is no security requirement associated with the requirement.

2. Statement of Work

The Work to be performed is detailed under Article 2 of the resulting contract clauses.

3. Debriefings

After contract award, 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 *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 (2012-07-11) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

The text under Subsection 4 of Section 01 – Code of Conduct and Certifications of 2003 referenced above is replaced by:

Bidders should provide, with their bid or promptly thereafter, a complete list of names of all individuals who are currently directors of the Bidder. If such a list has 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 provide such a list within the required time frame will render the bid non-responsive. Bidders must always submit the list of directors before contract award.

Canada may, at any time, request that a Bidder provide properly completed and Signed Consent Forms (*Consent to a Criminal Record Verification form - PWGSC-TPSGC 229*) for any or all individuals named in the aforementioned list within a specified delay. Failure to provide such Consent Forms within the delay will result in the bid being declared non-responsive.

The text under Subsection 5 of Section 01 – Code of Conduct and Certifications of 2003 referenced above is replaced by:

The Bidder must diligently maintain the list up-to-date by informing Canada in writing of any change occurring during the validity period of the bid, and must also provide Canada, when requested, with the corresponding Consent Forms. The Bidder will also be required to diligently maintain the list and when requested, provide Consent Forms during the period of any contract arising from this bid solicitation.

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.

3. Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than five (5) 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 questions or may request that the Bidder do so, so that the proprietary nature of the question is eliminated, and the enquiry can be answered with copies to all bidders. Enquiries not submitted in a form that can be distributed to all bidders may not be answered by Canada.

4. Applicable Laws

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

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.

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 hard copy)

Section II: Financial Bid (1 hard copy)

Section III: Certifications (1 hard copy)

If there is a discrepancy between the wording of the soft copy and the hard copy, the wording of the hard copy will have priority over the wording of the soft 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) 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 are encouraged to:

- 1) use 8.5 x 11 inch (216 mm x 279 mm) paper containing fibre certified as originating from a sustainably-managed forest and/or 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.

Section II: Financial Bid

Bidders must submit their financial bid in accordance with the Basis of Payment. The total amount of Goods and Services Tax (GST) or Harmonized Sales Tax (HST) must be shown separately, if applicable.

1.1 Exchange Rate Fluctuation

C3011T (2010-01-11), Exchange Rate Fluctuation

Section III: Certifications

Bidders must submit the certifications required under Part 5.

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

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.
- (b) An evaluation team composed of representatives of Canada will evaluate the bids.
- (c) The evaluation team will determine first if there are three (3) or more bids with a valid Canadian Content certification. In that event, the evaluation process will be limited to the bids with the certification; otherwise, all bids will be evaluated. If some of the bids with a valid certification are declared non-responsive, or are withdrawn, and less than three responsive bids with a valid certification remain, the evaluation will continue among those bids with a valid certification. If all bids with a valid certification are subsequently declared non-responsive, or are withdrawn, then all the other bids received will be evaluated.

1.1 Technical Evaluation

1.1.1 Mandatory Technical Criteria

Failure to meet any of the following mandatory criteria at bid closing will render your bid submission non-responsive and it will not be given further consideration.

- (a) The Contractor must demonstrate recent, within the last five years, experience and successful completion of Life Cycle Analysis related to agricultural production by providing a list of reports including dates and references.

1.2 Financial Evaluation

SACC Manual Clause A0220T (2007-05-25), Evaluation of Price

2. Basis of Selection

- 2.1 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 will be recommended for award of a contract.

PART 5 - CERTIFICATIONS

Bidders must provide the required certifications to be awarded a contract. Canada will declare a bid non-responsive if the required certifications are not completed and submitted as requested.

Compliance with the certifications bidders provide to Canada is subject to verification by Canada during the bid evaluation period (before award of a contract) and after award of a contract. The Contracting Authority will have the right to ask for additional information to verify bidders' compliance with the

certifications before award of a contract. The bid will be declared non-responsive if any certification made by the Bidder is untrue, whether made knowingly or unknowingly. Failure to comply with the certifications or to comply with the request of the Contracting Authority for additional information will also render the bid non-responsive.

1. Code of Conduct Certifications - Certifications Required Precedent to Contract Award

- 1.1** Bidders should provide, with their bids or promptly thereafter, a complete list of names of all individuals who are currently directors of the Bidder. If such a list has not been received by the time the evaluation of bids is completed, the Contracting Authority will inform the Bidder of a time frame within which to provide the information. Bidders must submit the list of directors before contract award, failure to provide such a list within the required time frame will render the bid non-responsive.

The Contracting Authority may, at any time, request that a Bidder provide properly completed and Signed Consent Forms (*Consent to a Criminal Record Verification form - PWGSC-TPSGC 229*) for any or all individuals named in the aforementioned list within a specified delay. Failure to provide such Consent Forms within the delay will result in the bid being declared non-responsive.

2. Certifications Precedent to Contract Award and Certifications Required with the Bid

Bidders must submit the certifications as provided below:

2.1 Certifications 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 so inform the Bidder and provide the Bidder with a time frame within which to meet the requirement. Failure to comply with the request of the Contracting Authority and meet the requirement within that time period will render the bid non-responsive.

2.1.1 Federal Contractors Program - Certification

Suppliers who are subject to the Federal Contractors Program (FCP) and have been declared ineligible contractors by Human Resources and Skills Development Canada (HRSDC) are no longer eligible to receive federal government contracts over the threshold for solicitation of bids as set out in the Government Contracts Regulations. Suppliers may be declared ineligible contractors either as a result of a finding of non-compliance by HRSDC, or following their voluntary withdrawal from the FCP for a reason other than the reduction of their workforce to less than 100 employees. Any bids from ineligible contractors, including a bid from a joint venture that has a member who is an ineligible contractor, will be declared non-responsive.

The Bidder, or, if the Bidder is a joint venture the member of the joint venture, certifies its status with the FCP, as follows:

The Bidder or the member of the joint venture

- a. ☐ is not subject to the FCP, having a workforce of less than 100 full-time or part-time permanent employees, and/or temporary employees having worked 12 weeks or more in Canada;
- b. ☐ is not subject to the FCP, being a regulated employer under the Employment Equity Act, S.C. 1995, c. 44;
- c. ☐ is subject to the requirements of the FCP, having a workforce of 100 or more full-time or part-time permanent employees, and/or temporary employees having worked 12 weeks or more in Canada, but has not previously obtained a certificate number from HRSDC, having not bid on requirements of \$200,000 or more;
- d. ☐ has not been declared an ineligible contractor by HRSDC, and has a valid certificate number as follows: _____ .

Further information on the FCP is available on the HRSDC Web site.

2.1.2 Former Public Servant Certification

Contracts with 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 with FPS, bidders must provide the information required below.

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, in the context of the fee abatement formula, 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

Is the Bidder a FPS in receipt of a pension as defined above? Yes () No ()

If so, the Bidder must provide the following information:

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

Work Force Reduction Program

Is the Bidder a FPS who received a lump sum payment pursuant to the terms of a work force reduction program? 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 reduction 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 the Goods and Services Tax or Harmonized Sales Tax.

Certification

By submitting a bid, the Bidder certifies that the information submitted by the Bidder in response to the above requirements is accurate and complete.

2.1.3 Status and Availability of Resources

2.1.3.1 SACC Manual clause A3005T (2010-08-16) Status and Availability of Resources

2.2 Certifications Required with the Bid

Bidders must submit the following duly completed certifications with their bid.

2.2.1 Canadian Content Certification

2.2.1.1 SACC Manual clause A3050T (2010-01-11) Canadian Content Definition

2.2.1.2 Canadian Content Certification

This procurement is conditionally limited to Canadian services.
Subject to the evaluation procedures contained in the bid solicitation, bidders acknowledge that only bids with a certification that the service offered is a Canadian service, as defined in clause A3050T, may be considered.

Failure to provide this certification completed with the bid will result in the service offered being treated as a non-Canadian service.

The Bidder certifies that:

() the service offered is a Canadian service as defined in paragraph 2 of clause A3050T.

PART 6 - RESULTING CONTRACT CLAUSES

1. Security Requirement

There is no security requirement associated with the requirement.

2. Statement of Work

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

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.

3.1 General Conditions

2010B (2012-07-16), General Conditions - Professional Services (Medium Complexity) apply to and form part of the Contract.

4. Term of Contract

4.1 Period of the Contract

The period of the Contract is from date of Contract to March 28, 2013 inclusive.

5. Authorities

5.1 Contracting Authority

The Contracting Authority for the Contract is:

Cindy Glover

Supply Specialist

Public Works and Government Services Canada

Acquisitions Branch

#201, 1800 11th Avenue

Regina, SK S4P 0H8

Telephone: (306) 780-5605

Facsimile: (306) 780-5601

E-mail address: cindy.glover@pwgsc-tpsgc.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.

5.2 Project Authority

The Project Authority for the Contract is:

To be determined at contract award.

The Project Authority 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 Project Authority, however the Project 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

Name: _____

Telephone Number: _____

Facsimile Number: _____

E-mail: _____

6. Payment

6.1 Basis of Payment

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid a firm lot price, as specified in Annex B for a cost of \$ TBD (insert the amount at contract award). Customs duties are included and Goods and Services Tax or Harmonized Sales Tax is extra, if applicable.

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.

6.2 Limitation of Price

SACC Manual clause C6000C (2011-05-16) Limitation of Price

6.3 Single Payment

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

6.4 SACC Manual Clauses

A9117C (2007-11-30), T1204 - Direct Request by Customer Department

7. Invoicing Instructions

1. The Contractor must submit invoices in accordance with the section entitled "Invoice Submission" of the general conditions. Invoices cannot be submitted until all the work identified in the invoice is completed.

2. Invoices must be distributed as follows:

- a. The original and one (1) copy must be forwarded to the address shown on page 1 of the Contract for certification and payment.

8. Certifications

8.1 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.

8.2 *SACC Manual* Clauses

A3060C (2008-05-12), Canadian Content Certification

9. *Applicable Laws*

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

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 2010B (2012-07-16), General Conditions - Professional Services (Medium Complexity);
- (c) Annex A, Statement of Work;
- (d) Annex B, Basis of Payment;
- (e) the Contractor's bid dated _____ .

11. *Insurance*

SACC Manual clause G1005C (2008-05-12), Insurance

ANNEX "A"

STATEMENT OF WORK

Title: Life Cycle Assessment of Western Canadian Canola Production during 1990 and 2010

1.0 Requirement

Agriculture and Agri-Food Canada (AAFC) requires a life cycle analyses of canola production practices and their environmental impacts for the AAFC Saskatoon Research Centre located at Saskatoon, Saskatchewan.

2.0 Background

The Canola Council of Canada and Agriculture and Agri-Food Canada are conducting a "farmgate" (cradle to gate) life cycle analyses (LCA) of canola production practices and their environmental impacts. The purpose is to evaluate emission intensity of canola production in Western Canada as well as the change in emission intensity between the two eras 1990 and 2010. Fundamental changes in canola production practices have occurred in Western Canada and the two time frames capture these changes. These practice changes are likely drivers in the reduction of the environmental footprint of canola. At the same time it is recognized that canola acreage has expanded dramatically so that it occupies the same number of acres that summer fallow held during the 1960's and 1970's. Some changes that occurred are: tillage practices have moved towards minimum or zero tillage; herbicide resistant canola replaces the need for soil incorporated herbicides; hybrid full-season canola replaces open pollinated varieties. However, the extent to which management practice has changed and the impact that it has had needs to be quantified by soil zone. In terms of a life cycle assessment the definition of goals and scope of the study was completed in 2011-12. Data collection and modeling, impact assessment and interpretation of results are required to complete the entire LCA.

Overall Objective: To determine the environmental footprint of producing 1 tonne of canola in 1990 and in 2010 for Western Canada.

3.0 Scope of work:

The scope and objective of the LCA have been completed and the relevant document is shown in the list of references. A stakeholder group has been established and a literature review conducted. Agriculture and Agri-Food Canada requires the "big picture" approach to LCA that considers impacts of management of canola production in the eras of 1990 and 2010. To this end, the drivers behind the expected reduction in emission intensity between the eras must be identified. To carry this out the method of analyses should be largely, but not exclusively, attributional. In interpreting the results the LCA must adhere to recommendations set by the International Standards Organization (Le. ISO 14040 and ISO 14044). The boundary of the LCA does not go beyond the farm gate. The final product is canola seed; transportation to storage or market off the farm is ignored. However, direct and indirect inputs and outputs and results of the "on-farm" canola production practice/system are considered and analyzed as part of the LCA.

Production practice inputs, average seed yield and area of production changed between the eras, but the practices, inputs and area will not be uniform across the Prairies.

Thus, the analyses must be carried out for Brown, Dark Brown, Grey and two sub zones of the Black soil zone; Specifically the Red River Valley and all of the Black soil zone excluding the Red River Valley. The net result or "big picture" of Western Canadian "on-farm," canola production, taking into account agro-climatic region, typified by soil zones, needs to be presented in the final report that includes description and discussions of methods, results, impacts and implications.

Sub-objective: To complete the LCA by conducting:

1. LCA inventory
2. LCA impact assessment
3. Interpretation
4. Final Report

4.0 Tasks and Specifications

4.1 Complete the LCA for canola production on the Prairies by March 28, 2013:

- o Using the cradle to farm gate boundary by soil zones described above;
- o Functional unit is 1 tonne of canola seed;
- o Largely using the attributional approach;
- o Using an inventory of production systems that reflect 1990 vs. 2010 eras.

4.2 Data requirements:

- o Specific to soil zone with sources identified in the final report and substitutions for western Canadian data clearly noted.
- o Time frames for data coverage for the two eras must be 1985 -1990 and 2005 -2010.
- o Technology of canola production systems representative of time and region in question with scenario defined.
- o Specific data requirements for each time period and geographical region: production data for field inputs; diesel and electricity production data and emissions; canola production practices by region and era i.e. seeding, plant protection, tillage and harvest and storage.

4.3 Data quality requirements:

- o Survey data must be cross-checked with other variable data (e.g. Statistics Canada) to ensure correlation and limit sample group biases.
- o Variance in data by soil zone (e.g. fertilizer use) could be considerable.

These differences need to be identified and discussed.

- o Discussion of overall quality of data and assumptions about the data used to model the life cycle, and the impact it may have on results or conclusions.

4.4 LCA Impact Assessment (LCIA) must follow a midpoint analyses.

4.5 Impact categories to be included:

- o Global warming

- o Non-renewable energy;
- o Eutrophication of soil and water;
- o Acidification to soil and water;
- o Ecotoxicity
- o Land use

4.6 Impact Assessment method:

- o Methods used must be internationally accepted and or specific to Canadian context. The assessment method or methods must be uniform and their limitations should be addressed and discussed in the report.

4.7 Sensitivity Analyses:

- o Must be performed on major assumptions; largest contributors to environmental profile; data averages with high variance; where data gaps occur.

4.8 Uncertainty analyses must be performed and reported using methods required for data in question.

5.0 Deliverables (Final Report and Schedules):

The final report must be provided to AAFC by March 28, 2013. It must follow the guidelines and specifications listed above and include:

1. Inventory analysis
2. Impact assessment
3. Interpretation of results.

The final report must follow the format shown in ISO 14040 guidelines. Three copies are required: Agriculture & Agri-Food Canada, Canola Council of Canada and Stakeholder group. The contractor must be able to provide reports by telephone or in writing (i.e. e-mail) to Agriculture & Agri Food Canada principles at monthly intervals or upon request.

6.0 References:

MacWilliam, Susan, Sanscartier, David and Wismer, Monique. 2012. Definition of goal and scope for a life cycle assessment of Western Canadian canola crop production. SRC Publication No. 13236-2C12. 21 pp. Saskatchewan Research Council, 125 - 15 Innovation Blvd. Saskatoon, SK, S7N 2XB.

Solicitation No. - N° de l'invitation

01580-130141/A

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur

reg162

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

01580-130141

File No. - N° du dossier

REG-2-35061

CCC No./N° CCC - FMS No/ N° VME

ANNEX B

BASIS OF PAYMENT

For the complete sum of \$_____ for the work described in Annex A, Statement of Work.