Environment Canada Environnement Canada

NCR Procurement and Contracting
Finance Branch
351 Saint-Joseph Boulevard
Gatineau, Quebec
J8Z 1T3

June 2, 2014

Solicitation number K2A13-14-0001

PROJECT TITLE: The development of an Environmental Evaluation Framework for Electricity Generation and the testing of the analytical framework of the biomass to electricity component.

Dear Madam/Sir:

Environment Canada has a requirement for the services described in the attached "Terms of Reference". We are, as a result, soliciting proposals to perform this work.

If you are interested in providing these services, you must submit **three (3) copies of your technical proposal, two (2) copies of your completed signed Offer of Service, and two (2) copies of the former public servant certification** no later than **15:00 (local time)** on **July 14 , 2014** to the following office:

Environment Canada (BIDS)
Mailroom
171 Jean-Proulx
Gatineau, Quebec
J8Z 1W5

in accordance with the following procedures:

1. Identify the solicitation number **K2A13-14-0001** on the outside of all proposal/courier envelopes.

2. Include the following in your proposal, in sufficient detail for evaluation purposes:

   (a) a brief statement indicating your understanding of the work;

   (b) a summary of your related experience;

   (c) a listing of staff (professional, technical, administrative, sub-contractors) who will be assigned to the work, and their respective personal résumés;

   (FORMER PUBLIC SERVANTS IN RECEIPT OF A GOVERNMENT PENSION MUST BE CLEARLY IDENTIFIED)

(d) an explanation of the intended approach and/or methodology; and

(e) contingency plans to be implemented in the event assigned staff become unavailable during the period of the contract.

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

SECTION I: SUBMIT THREE (3) HARD COPIES OF YOUR TECHNICAL PROPOSAL;
SECTION II: SUBMIT TWO (2) *SIGNED* HARD COPIES OF THE OFFER OF SERVICE (WHICH REPRESENTS THE FINANCIAL BID).
SECTION III: SUBMIT TWO (2) *SIGNED* HARD COPIES OF THE FORMER PUBLIC SERVANT CERTIFICATION.

Prices must appear in the Offer of Service (Financial Bid) only. No prices must be indicated in any other section of the bid. Offer of Service must be signed.

Bids must be submitted only to Environment Canada's Mailroom by the date, time and place indicated on page 1 of the bid solicitation.

Due to the nature of the bid solicitation, bids transmitted to Environment Canada by facsimile or e-mail will not be accepted.

All questions concerning this project shall be submitted in writing by email: josee.francoeur@ec.gc.ca

Yours sincerely,

Josée Francoeur
Contracting Officer
Finance Branch

Attachments:
Offer of Service
Former Public Servant Certification
Mandatory Proposal Instructions
Terms of Reference
Evaluation Grid

MANDATORY PROPOSAL INSTRUCTIONS

1. Receipt

The specified office will receive the sealed proposals (including the Offer of Service) or revisions up until the time and date specified in the letter of invitation.

Environment Canada shall no longer accept the Offer of Service/technical portion of the bidders' proposals by facsimile or by electronic mail.

2. Unacceptable Proposals

Proposals received after the closing date and time will not be considered **and will be returned unopened.**

Proposals **NOT** submitted with duly completed Offer of Service forms in the format specified by the Department will not be accepted.

Incomplete proposals will be considered non-responsive and rejected.

Any Offer of Service that exceeds the stated ceiling or maximum price, if any, shall be considered non-responsive and rejected.

Any Offer of Service not signed in accordance with the letter of invitation shall be considered non-responsive and rejected.

3. Acceptance

The Department will not necessarily accept the lowest or any of the proposals submitted.

4. Completion

The Offer of Service form must be completed and submitted in the format presented by the Department.

Proposals must be submitted in accordance with these instructions and those contained in the letter of invitation.

It is the proposer's responsibility to ensure his/her complete understanding of the requirements and instructions specified by the Department. Enquiries concerning this solicitation must be submitted in writing to the contracting authority (Josée Francoeur) no later than five (5) working days prior to the bid closing date specified herein to allow sufficient time to provide a response.

5. Reference

The Department of Environment reserves the right, before awarding the Contract, to require the Contractor to submit such evidence of qualifications as it may deem necessary, and will consider evidence concerning the financial, technical and other qualifications and abilities of the contractor.

OFFER OF SERVICE

1. **Offer submitted by**: (Print or type complete business or corporate name, address, telephone number, fax number)

_____

_____

_____

_____

Tel. No. _____ Fax. No. _____

E-Mail _____

2. I (We), the undersigned, hereby offer to Her Majesty the Queen in Right of Canada, as represented by the Minister of Environment, to furnish all necessary expertise, supervision, materials, equipment and other things necessary to complete, to the entire satisfaction of the Minister or his/her authorized representative, the work as described in the Solicitation package according to the terms and conditions of the Department's service contract for the following prices:

2.1 Professional Services:

The following is a breakdown of the Professional Services (show fee structure all-inclusive of profit and overhead).

Category of Personnel	Per Diem Rates	Number of Days Assigned	Total

2.2 **Travel Expenses:** $_____

2.3 **Administrative Expenses:**

(Courier, long distance calls, reproduction, etc.).

$_____

2.4 **TOTAL PROPOSAL PRICE**
(Canadian Currency)

$_____
(Total of 2.1 + 2.2 + 2.3 above)

+ G.S.T. $_____

TOTAL: $_____

3. I (We) agree that the Offer of Service will remain firm for a period of one hundred and twenty (120) calendar days after the tender closing date.

4. Payment for professional services and associated costs will be effected upon completion of each phase, submission of invoices detailing the work completed to date and upon confirmation by the departmental representative of the services rendered/deliverables received.

Claims for travel and accommodation expenses will be reimbursed at cost, in accordance with the Travel Directive, after they have been submitted with the aforementioned invoices and supported by receipts, vouchers, or other appropriate documents.

5. I (We) agree to submit herewith the following:

(a) a PROPOSAL to undertake the work, indicating an understanding of the objectives and responsibilities, a methodology and a time schedule as it relates to the requirements;

(b) a CORPORATE RESUME indicating relevant experience, the proposed personnel for the work team including their curriculum vitae;

(c) a list, if applicable, of SUBCONTRACTOR(S) including full names and addresses, portion(s) of work to be subcontracted and relevant firm experience;

(d) a duly completed OFFER OF SERVICE, **in two copies (2).**

(e) a duly completed former public servant certification, **in two copies (2).**

6. It is a condition that during the term of the contract all persons engaged in the course of carrying out this contract shall conduct themselves in compliance with the principles of the Conflict of Interest and Post-Employment Code for Public Office Holders. Should an interest be acquired or seem to cause a departure from the principles, the contractor shall declare it immediately to the departmental representative.

OFFERS WHICH DO NOT CONTAIN THE ABOVE-MENTIONED DOCUMENTATION OR DEVIATE FROM THE PRESCRIBED COSTING FORMAT SHALL BE CONSIDERED INCOMPLETE AND NON-RESPONSIVE AND SHALL BE REJECTED.

Dated this day of , 2014, at in the province of

_____ _____

by: (Signing Officer) Print & Sign Title

Former Public Servant Certification – Competitive Requirement

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, 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 the above 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 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.

_____
Signed

_____
Date

TERMS OF REFERENCE

SOLICITATION **K2A13-14-0001**

The development of an Environmental Evaluation Framework for Electricity Generation and the testing of the analytical framework of the biomass to electricity component.

INTELLECTUAL PROPERTY & CONFIDENTIALITY

INTELLECTUAL PROPERTY

Environment Canada has determined that any intellectual property arising from the performance of the work under this Contract will be vested in Canada on the grounds that the main purpose of the Contract, or of the deliverables contracted for, is to generate knowledge and information for public dissemination (section 6.4.1 of the Treasury Board of Canada Secretariat *Policy on Title to Intellectual Property Arising under Crown Procurement Contracts*).

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 or his/her delegate, any information obtained in the course of the performance of the ensuing contract.

Subject to the Access to Information Act, R.S. 1985, c.A-1, the parties agree that the terms of this Agreement are confidential and each party shall use the same degree of care to prevent disclosure of the terms of this Agreement to third parties as it uses to protect its own confidential information of similar nature. Any failure of the Contractor to respect the confidentiality obligations is a default of the Contractor for which the Minister may terminate the contract.

OBJECTIVES

The project has three objectives:

i) to develop a conceptual framework for evaluation of environmental performance from a broad range of electricity sources that will allow for consistent, holistic and transparent evaluation of environmental performance of electricity sources in Canada using a life cycle approach;

The conceptual framework will present our current understanding, knowledge, data and relations of the environmental impacts from different types of electricity production in a Canadian context. It is the foundation for assembling existing information.

ii) to design a simple analytical framework; and

The analytical framework transforms the conceptual framework into a simple program (or excel or chart or other) that can be populated with values or range of values.

iii) to complete the evaluation of environmental impacts from biomass for electricity production using the framework.

The analytical framework will be populated with typical indicator values or ranges of values for the biomass to electricity component. Recommendations will be with advice to the use on how to select the most appropriate value.

BACKGROUND

In the fall of 2013, Environment Canada received funding from Natural Resources Canada's Program of Energy Research and Development (PERD) to co-lead, with Natural Resources Canada, a project that will develop a framework to evaluate potential environmental impacts of electricity generation using a life-cycle approach. A conceptual framework applicable to various types of electricity will be developed and a simple analytical framework will be completed for the biomass electricity production component.

This project will facilitate the evaluation of complex environmental impacts from electricity generation in a consistent, thorough and transparent way using a life cycle approach. The method to evaluate environmental impacts will remain comprehensible, suitable and cost-effective for high level appraisals. As there is a growing interest to cleaner technologies for electricity production, it is necessary to develop a method that will allow evaluating the environmental impacts associated with electricity generating fuel /resource and/or technology.

The project is the first and the only funded phase of a larger 4-phase initiative briefly presented below. Phase 1 will therefore serve as the foundation of future phases, thus requiring thorough analysis, documentation of decisions and assumptions and creativity. In this document, "*the Project"* refers <u>only</u> to the activities under the Phase 1.

- Phase 1 (PERD 13-15 Funding): Develop a conceptual framework and an analytical framework completed for the biomass electricity production component, and validated against existing International Organization for Standardization (ISO) Life Cycle Assessment case studies. Identify gaps in data and make recommendations;
- Phase 2: Review of the conceptual framework and the simple analytical framework with an expanded multi-disciplinary Advisory Committee. Modify the conceptual framework as needed.
- Phase 3: Quantitatively assess the electricity generation potential & limitations, and, describe all known environmental impacts, for a prioritized list of generation options that reflect Canada's most likely electricity sources. Assess data gaps. For each generation option, populate the framework and validate against ISO Life Cycle Assessments case studies in the literature. Periodically review the framework with the Advisory Committee to assess work to date and to improve the framework.
- Additional phases: Identify if our results are a right fit for a web program and make it available on the web. Continue improving the framework.

Environmental impacts from electricity generation are complex : they are multidisciplinary (climate change, air emission pollutants and toxics, water pollutant or thermal discharges, water use, impacts on wildlife, impacts on fish habitat, impact on biodiversity, etc.), grouped as direct (related to the process) or indirect (upstream or downstream impacts) and vary over time. This complexity is difficult to analyze and leads to environmental impacts assessments that are often project specific.

Life Cycle Assessment (LCA) is a tool that allows for the evaluation of environmental impacts and benefits. In 2011-12, Environment Canada and Natural Resources Canada led and completed a Research & Development (R&D) project *Life Cycle Assessment of forest-based biomass at the Atikokan power plant* project (unpublished). The use of life-cycle assessment

was explored to quantify the potential environmental impacts of converting a generating station from burning coal to burning wood pellets, using the Atikokan Power Generating Station in northwestern Ontario as a case study. This was a first LCA of its kind in Canada. However, life-cycle assessment requires massive amounts of data (and therefore time and financial resources). There is limited methodological flexibility to meet the ISO requirements, i.e it is not possible to include local ecological impacts, and LCA can include weighting, i.e. environmental impacts and benefits are aggregated into a final, easy to compare, 'score'.

The life-cycle assessment R&D project identified the need for industry and policy makers to have access to less data intensive tools that are much cheaper and faster to use, in order to give a scale of potential environmental impacts of considerations, rather than precise environmental impacts. As such, in this project, a comprehensive, thorough and transparent approach will be developed to consider all potential environmental impacts upstream and downstream, and their variability over time, in a general, first cut with standardized information. The conceptual framework will make it easier to cope with these complex environmental impacts that, often, vary with time.

The conceptual framework will be turned into an analytical framework (tool) available on-line in later phases (in this project, a simple analytical framework is requested). The analytical framework will provide a method and guidance for the user to assess environmental impacts. It will be flexible enough for the user to make decisions using the data and knowledge available, but under the guidance provided by the analytical framework. This important aspect puts the responsibility of assessment on the user. The analytical framework will also include indicators and guidance to the user to address certain impacts that are difficult to quantify, such as local ecological impacts.

This project will therefore increase our knowledge of electricity options and their environmental impacts (direct and indirect) in a Canadian context. As there is a growing interest for cleaner technologies for electricity production, combined to provinces that are seeking to diversify their energy mix with cleaner electricity sources, the approach will help better understand the benefits, direct and indirect environmental consequences of electricity choices in a holistic way. For governments, environmental non-governmental organizations and citizens, it will facilitate providing input to energy policies and environmental policies related to electricity. For industry, citizens and government, it will ensure all environmental impacts and benefits are considered for a given project, facilitate environmental assessments and assist in identifying the key areas that could require mitigation measures. In short, the framework will support rapid assessments of environmental benefits and impacts from electricity sources.

PERIOD OF CONTRACT

The period of the Contract will be from date of Contract award to **March 31, 2015** inclusive.

WORK DESCRIPTION

Tasks

The work is divided into 7 Tasks described below. The information contained in this section is to be used as a general guide by the Contractor. It is expected that the Contractor will provide feedback on these items, and make additional suggestions on issues to be addressed by the work identified in this contract.

Task 1 – Review and completion of the literature/models review

In February 2014, to ensure the project is carried out within reasonable timelines, the literature review and a review of existing tools was contracted out to a Canadian University. It will be complete by the time the contract for the Framework Development is awarded and will be made available to the Contractor. The Contractor will review and complete it as appropriate.

Below are the requirements for the literature review, currently being completed by a Canadian University:

The literature review will focus on assessments of environmental impacts of electricity production. The focus will be on peer-reviewed studies which have used the ISO approach to life cycle assessment, in order to input data for the framework but also to provide points of validation for the framework as it is tested. The literature review will also include additional literature to ensure different aspects of the scope of the project are covered: multiple environmental impacts including local ecological ones, life cycle approach and temporal aspect. The literature review will not be limited to Canadian publication, but will include studies from Europe, US and elsewhere as appropriate.

The literature review will include a section detailing modelling approaches. A range of existing models should be reviewed, including open models (such as openLCA) and professional packages (SimaPro, GABI). Specialized tools, such as the Greenhouse Gas (GHG) calculator provided by the Roundtable on Sustainable Biofuels will also be considered.

The literature review will be summarized in a Table format detailing the methods used, to which type of electricity production it can be applied, the scope of environmental impacts, the life cycle approach, the temporal aspect and any comments on the size.

Finally, the literature review will include a section detailing modelling approaches, the linkages between life cycle and criteria and indicators approaches, and existing studies of relevance. It will also identify methodological challenges and provide considerations and/or guidance on how they can be addressed. Methodological challenges refer to challenges related to the methodology for example, some methods may only be applicable only to large scale electricity system and leave a methodological void for smaller systems, other methods can only be applied to some types of electricity, some environmental impacts have no method, scientifically recognized, to quantify them, etc. In short, the methodological challenges inventoried will require a thorough understanding of existing methods, analysis and creativity to be resolved.

Based on the revised literature and models review and the methodological challenges inventoried by the Canadian University, the Contractor will recommend a methodology that will be used to develop the framework. The recommendation could be to use an existing approach, a combination of approaches or highlight the need to create a novel approach. The Contractor will also complete the methodological challenges and explain how they will be addressed in this project.

Output from Task 1:

- Deliverable 1: Additions and edits to the literature review and recommendations regarding the methodology to apply in this project. This interim report will be written in a way to form a chapter of the final report.

Task 2 – Scope and Selection of environmental indicators

Considering the overall objective of the project and the work to be completed, the Contractor will further define the activities that will be included (boundaries of the system) and appropriate justification.

To date, no scientific consensus has been reached regarding which impact categories or indicators should be considered significant for the production of electricity. Additionally, there are often limitations with respect to data and equivalence factors.

In this Task, the Contractor will decide on the indicators that will be used for the framework and justify the selection (inclusion or exclusion). The Contractor will consider the literature review and the guidance provided in Task 1, feasibility, input from the Advisory Committee and the overall`s project objective of including all environmental impacts in a life-cycle approach.

The indicators will be selected based on their representativeness for all types of electricity generating fuels. Data availability is not a justification to exclude indicators from the conceptual framework, since the conceptual framework will be developed with flexibility in order to be improved as data becomes available. Any limitations related to the selection of the indicators will be clearly identified. Consideration will be given to GHG emissions indicator as well as a climate change forcing indicator, which will enable the evaluation of electricity options from a GHG perspective in the short and long term.

Local ecological impacts are the environmental impacts related to land use, such as wildlife, biodiversity, habitat, etc. These local ecological impacts are difficult to quantify and are not covered by any existing Life Cycle Impact Assessment (LCIA) methodology. In Task 2a), the Contractor will elaborate further on how local ecological impacts will be considered and be deployed in the conceptual framework, given their importance.

Task 2a) The Contractor will prepare a summary of the work completed in the past 10 years indicators for local ecological impacts (or other nomenclature). Considering the life-cycle approach, direct impacts to flora and fauna (increase/decrease in species richness, introduction of invasive, anticipated wildlife mortality, introduction of toxins, specific implications for sensitive or endangered species, etc.) and indirect impacts (landscape structure (e.g. fragmentation or composition), release of toxins to the natural environment, changes in ecosystem structure or function, nutrient depletion, or water use for example) will be covered. To date, no approach that is applicable to multiple types of fuels has been adopted by the scientific community.

From the review of the work completed on local ecological impact indicators, the Contractor will conduct an analysis and propose a method that will address local ecological impacts in the conceptual and analytical frameworks. Local ecological impacts are specific to an area, while the conceptual intends to be rather generic. The method proposed will have to be applicable to all types of electricity sources. A method for data logging and warehousing allowing coding by location, date, and ownership will allow the development of a decision-tree structure, which will in turn allow the model to pick the best data for the proposed project.

Output from Task 2:

- Deliverable 2: Interim report on the scope and the selection of indicators. A section of this interim report will focus on presenting the review of the local ecological indicators, analysis and recommendations and will highlight methods for storing data that includes location, date, and ownership. This interim report will be written in a way to form a chapter of the final report.

Task 3: Build the conceptual framework using a life cycle approach

The conceptual framework will be used as a foundation for existing information that will, in a later Task, be developed in an analytical model. It will present our current understanding, knowledge, data and relations of the environmental impacts from different types of electricity production in a Canadian context, and will offer the flexibility to be modified or expanded.

Consideration will be given to a modular approach, which breaks down the components of a life cycle inventory into logical stages including production, transport, generation, distribution, and use, might facilitate a flexible framework capable of handling multiple electricity sources in future phases of work. The modular approach offers the advantage of developing the modules related to electricity production as part of this project, with the flexibility to add the transmission modules in later phases. In addition, the approach allows users to interchange different elements of a project easily.

The conceptual framework will have a holistic approach that includes all environmental impacts combined to a life cycle approach (from cradle to grave). The conceptual framework will also consider the time component: some impacts can be exhibited as short-term pulses while others are long term.

The conceptual framework will contain the knowledge, information and data necessary to provide the generic information for all indicators for different types of fuels. The conceptual framework will also include guidance for the user to rate the indicator based on the specifics of a given situation.

The conceptual framework will be developed for transparent weighting of environmental impacts by the end-user. The weighing will therefore be adapted based on changes in societal values or policy priorities and can be revised according to the up-to-date information. Thus, the project will not force a given set of environmental priorities, but instead include a transparent and consistent approach.

Although this framework is conceptual, it must be descriptive enough and provide sufficient details to develop an analytical model from it.

To complement this task, the Contractor will also identify any gaps or limitation of the conceptual framework. Because this type of project, covering cradle to grave environmental impacts for different sources of electricity production in Canada, has not been attempted before

in Canada, methods (and data) may not be readily available to complete a project with definitive outputs. Any data gaps and uncertainties inherent to the method will be assessed. Recommendations to improve the framework, based on the uncertainty of the data and its availability, and the cost and time required to gather it, will also be prepared. Areas that are found to have high relevance and high uncertainty will be considered for future improvements.

Output from Task 3:

- Deliverable 3: Interim report on the conceptual framework, including data gaps, limitations and recommendations. This interim report will be written in a way to form a chapter of the final report.

Task 4: Design a simple analytical framework component (the tool).

Based on the conceptual framework developed in Task 3, a simple analytical framework will be designed for the biomass component, using simple systems such as systems diagrams or Excel program. The analytical framework will be simple and at a structural level with little technology investment to allow for improvement and the expansion to other types of fuels in future phases. This simple analytical framework would serve as a first step towards building a more sophisticated program (web tool or application) for users to apply the framework in later phases of the project.

Output from Task 4:

- Deliverable 4.1: The simple analytical framework.
- Deliverable 4.2: Interim report on the simple analytical framework for the biomass fuel. This interim report will be written in a way to form a chapter of the final report.

Task 5: Populate the analytical framework in a semi quantitatively manner for a first iteration of the biomass fuel component and analyze the results

At this stage, the analytical framework may resemble something like a decision tree, presenting the user with environmental considerations, expanded criteria and further indicators or inputs required for a given energy generation option. In this task, the framework will be populated for the biomass electricity generation component. For each criteria of the simple analytical framework, general values or range of values that might be expected will be presented for the biomass to electricity component. These may be initial values from case studies, existing models or databases. The analytical framework will give sufficient guidance for a user to assess environmental impacts for a given biomass option.

The report *Life Cycle Assessment of forest-based biomass at the Atikokan power plant* project (unpublished) resulting from an R&D project led by the same Environment Canada – Natural Resources Canada team in 2011-12 will be made available to the Contractor. This report will provide some knowledge and data for populating the analytical framework for the biomass to electricity component

A high level analysis of the first iteration of the populated analytical framework for the biomass to electricity component will be conducted. The Contractor will identify data gaps related to the biomass to electricity component. The uncertainty inherent in the data being used will be assessed and areas found to have high uncertainty will be considered as having priority for data improvement in future years. Recommendations to improve the biomass to electricity component will be presented with a cost and time estimate.

It is possible that, by populating the biomass to electricity component of the framework, additional recommendations related to the conceptual model (Task 3) or the simple analytical model (Task 4) will emerge. These additional recommendations will be reported.

Output from Task 5:

- Deliverable 5: Interim report on the population of the analytical framework for the biomass fuel component. This interim report will be written in a way to form a chapter of the final report.

Task 6: Analysis and recommendations

The Contractor will discuss the products developed and if they meet the project`s objective.

The analysis will examine the influence of the scale of electricity generating systems on the framework, since the potential environmental impacts from electricity generating systems are function of its scale.
Relying on the Contractor's experience, relevant source of information and the literature review completed in Task 1, utility (large) scale and community (small) scale will be defined appropriately (possibly depending on the type of fuel). The differences in potential environmental impacts between utility (large) scale projects and community (small) scale projects will be studied in order to understand the influence of scale of the electricity generating system on the use of the framework. Finally, a method or approach will be developed to address the differences in scales of electricity generating systems in the framework. Note that the literature review, completed in Task 1, presented existing tools and frameworks and if they applied to large electricity generating systems, small electricity generating systems or both. The literature review will provide some guidance on how the difference in sizes of systems can be addressed in the framework.

The Contractor will provide recommendations on the path forward towards improving the framework, the biomass to electricity data and populating the framework with other types of fuels for electricity production. The Contractor should rely on his experience, expertise and the data gap and uncertainty analysis provided in some of the Tasks to provide recommendations in an order of priority.

Output from Task 6:

- Deliverable 6: Interim report providing an overall analysis on the conceptual framework and recommendations. This interim report will be written in a way to form a chapter of the final report.

Task 7: Reporting

In preparation of phase 2 that will review the framework, it will be important to have methods and information well packaged and easily accessible.

As described in Tasks 1 to 6, an interim report will be prepared and delivered for each Task for the Project Manager and the Advisory Committee to review and comment. These interim reports, once reviewed and finalized, will form chapters of the final report.

The following reports will be prepared:

- Draft final report summarizing the methodology, data and results that will be prepared for each of the Task 1 to 7 detailed above as the work proceeds. This draft final report will be reviewed and commented by the Project manager and the Advisory Committee.

- The final report will include all aspects of the work and will address all the comments raised by the reviewers from the draft final report.
- A presentation will be developed and made to the Advisory Committee and invited attendees.

Output from Task 7:

- Deliverable 7.1: Final report;
- Deliverable 7.2: Final simple analytical model populated for the biomass to electricity component
- Deliverable 7.3: Presentation to the Advisory Committee and invited invitees.

DELIVERABLES/MILESTONES

The contract shall be comprised of deliverables as described below. In its proposal, the Contractor may adjust, within reason, the timelines associated to deliverables to reflect the level of effort.

- Milestone 1 : Weeks 1 to Week 6 :
  - Final Deliverable 1
  - Draft Deliverable 2;

- Milestone 2 - Week 7 to 16 :
  - Final Deliverable 2
  - Draft and Deliverable 3

- Milestone 3 - Week 7 to week 22:
  - Final Deliverable 3
  - Draft Deliverable 4.1
  - Draft Deliverable 4.2

- Milestone 4- Week 23 to Week 35 :
  - Final Deliverable 4.1
  - Final Deliverable 4.2
  - Draft Deliverable 5 (final deliverable 5 will be part of the final report and not submitted separately)
  - Draft Deliverable 6 (final deliverable 6 will be part of the final report and not submitted separately)
  - Draft 7.1
  - Draft 7.2

- Milestone 5- Week 35 to Week 38: The interim reports for Tasks 1 to 4 are ready to be chapters of the final report while draft deliverables from Tasks 5 and 6 are reviewed).
  - Final Deliverable 7.1 (which will include final deliverable 5 and 6)
  - Final Deliverable 7.2
  - Final Deliverable 7.3

DELIVERABLES AND SCHEDULE

Section Description - Tasks presented the deliverables associated to each Task. For guidance, Section Deliverables/Milestones outlines the proposed deliverable schedule. The Contractor can discuss adjustment of intermediate in its proposal, within reasonable limits. However, the submission of final deliverables cannot be later than the dates proposed in this table. Section

Deliverables/Milestones also suggests an indication of the level of effort per task, for guidance only.

All documentation, files, papers, journals, databases, GIS files, etc., used or consulted during the project will be submitted to the Scientific Authority, in an organized manner, as a deliverable for this project.

STRUCTURE OF FINAL REPORT AND DELIVERABLES

The report will be written in a clear and logical fashion, complete with appendices as required, to address the issues and questions introduced in the Terms of Reference, as well as any other items raised during discussions between the Contractor and the Scientific Authority. If a particular task, or aspect thereof, cannot for any reason be fulfilled, an explanation, to the satisfaction of the Scientific Authority, is required. The Contractor may, subject to the approval of the Scientific Authority, change the suggested order of the final report from that implied by the Terms of Reference.

Where appropriate and available, uncertainties will be identified, their sources explained and a range of high/low values or an appropriately justified data distribution will be provided.
All the sources of information shall be documented.

The analytical model will be presented in an easy user friendly format.

GENERAL INSTRUCTIONS FOR DELIVERABLES

All documents, reports and correspondence generated by the Contractor during the course of this project shall be in English, be double-sided, using Microsoft Word for Windows for word processing (version 7.0 or later), Microsoft Excel or Microsoft Access for Windows for data management, and Microsoft Power Point for Windows for presentations and other graphics.

Materials should be developed in a reader- and user-friendly format targeted toward an audience with a wide range of experience, education, and varying knowledge of the sector and its processes. It is recommended that an effective use of textual, visual (e.g., schematics) and mathematical information formats be incorporated within the report. Gaps in information and uncertainties (where they exist) shall be identified throughout the report if of importance.

A camera-ready original, electronic copy in PDF and Word format and five hardcopies of the final report are to be submitted to the Scientific Authority. The Contractor should note that this report could be made public, at the discretion of the Scientific Authority.
All supporting and underlying data (raw data) shall be provided in Microsoft Excel format (version 2007 or later). Data must be properly organized, referenced and sourced.

ACCEPTANCE CRITERIA

All deliverables, and successful completion of the project, will be subject to approval by the Scientific Authority.

Interim and draft deliverables will be submitted to the Scientific Authority and presented to a meeting or teleconference (exact date to be determined) with the Advisory Committee. The objectives of this session will be to discuss and improve the interim or draft deliverable for final delivery. In addition, members of the Advisory Committee, and other experts as required, will

be invited to submit comments on the interim or draft deliverable to the Scientific Authority within two (2) weeks of the meeting.

These comments will be passed on to the Contractor by the Scientific Authority. The Contractor shall take into consideration the comments provided on the interim and draft reports and incorporate them as appropriate into their work and the final report.

All work is to be performed to the satisfaction of the Scientific Authority.

COMMUNICATIONS

To assist with coordination of this project, the Contractor will communicate bi-weekly by email and/or by telephone with the Scientific Authority with updates on the project. The Contractor will describe briefly the status of each tasks and any deviation from the work plan or the timelines in the proposal. Any changes to the schedule must be justified and accompanied with a solution that takes into account remaining timelines. Updates will include issues that the Contractor is facing that may delay the schedule or jeopardize the expected quality of the final product. These updates are important to ensure collaboration and good communication between the Scientific Authority and the Contractor, and ultimately the key partners in the project. Regular feedback (at least every two weeks) through email, and/or phone calls shall be maintained between the Contractor and the Scientific Authority.

The Contractor will also participate, in person or by teleconference, in Advisory Committee meetings to present deliverables and seek feedback. Five meetings, two in person, three by teleconference, (including the final presentation) with the Advisory Committee are planned during the duration of this contract.

GOVERNANCE

The Contractor will take guidance and directions from the Scientific Authority.

A multidisciplinary Advisory Committee will guide and support the project. The Advisory Committee will be co-chaired by the Scientific Authority from Environment Canada and a representative from the Natural Resources Canada. While the composition of the Advisory Committee is not final, it will likely include approximately four (4) experts in framework development, environmental impacts and/or electricity production, as well as up to two additional federal public servants.

The Advisory Committee will meet periodically (4 to 6 meetings) throughout the duration of the project. Generally, meetings will be coordinated with the end of a Task. Material will be circulated prior to the meeting for Advisory Committee members to review. The Contractor will be invited to attend, present, recommend, discuss and decide on direction of the project with the Advisory Committee during those meetings. Written comments from Advisory Committee members will be reported to the Scientific Authority, who may share them to the Contractor. <u>To ensure a clear understanding of the tasks to be undertaken, the Contractor will only take direction and decisions from the Scientific Authority, and these will be in writing.</u>

CROWN INPUT

The government will not furnish any equipment, facilities, services or access to information to the Contractor for the performance of the contract.

TRAVEL

The Contractor will need to participate, in person, in Advisory Committee meetings to present deliverables and seek feedback. Travel for two meetings (including the final presentation) to Environment Canada, Gatineau, Quebec will be necessary for this contract. The other meetings will be done via teleconference.

Estimated Travel Expenses: $ _____

Transfer grand total to Section 2.2 of Offer of Service (page 6 above)

PROJECT COST

Environment Canada has established funding for this project at a maximum amount of $190,000.00 CAD excluding HST/GST, all within the 2014-15 fiscal year, and broken down as follow.

- Travel expenses: Up to a maximum cost of $9,000.00 excluding HST/GST for travelling for two (2) meetings.
- O&M : up to $181,000.00 CAD excluding HST/GST

This covers the period from date of award to March 31, 2015.

SECURITY

There is no anticipated level of clearance require.

PROPOSAL INSTRUCTIONS

MANDATORY AND RATED REQUIREMENT

Evaluation of proposals

The proposals should describe in sufficient detail the technical qualifications and relevant experience of the Contractor and key professional staff (as applicable), and sources of reference data/information cited in the proposal.

Understanding of the project

The proposal must clearly demonstrate an understanding of the work to be undertaken, why it has been requested and its possible challenges.

Approach and methodology

A description of the technical approach, methodology and data sources to be used should be included. The proposed approach, methodology and specific steps undertaken to meet each Output in the Statement of Work must be presented in detail, and must state which key personnel will be assigned to each task. The proposed approach and methodology must be technically feasible.

Advantages of the proposed approach should be presented.

Possible problems and challenges that could arise that would impact the quality and/or delivery of the project should be presented, with realistic solutions.

Detailed work plan

The proposal must present a detailed work plan that demonstrates how the Contractor will carry out the tasks outlined in the Statement of Work so that objectives are achieved. The detailed work plan will also include a time schedule outlining the main activities and milestones. The detailed work plan must be coherent with the proposed approach and the budget. The feasibility of the work plan will be assessed.

The resources allocated to each Task will be evaluated to ensure the proposed approach and methodology can be carried out. The qualifications and experience of the resources allocated for each Task will also assessed.

The work plan should also explain how and at what frequency the Contractor will communicate with the Scientific Authority. An outline of the objective and content of the communication should be detailed.

Back-up arrangements will be presented in case problems arise during the project and the knowledge and experience of the back-up staff will also be evaluated.

The Contractor should describe how quality assurance will be addressed thorough the project. The proposal must explain how quality assurance will be applied to management of the project, but also to the data, the analysis and the results.

Qualification and Experience

The proposal must include sufficient detail for reviewers to be able to assess the Contractor's expertise and knowledge of framework development, both conceptual and analytical framework.

The proposal must include sufficient detail for reviewers to be able to assess the Contractors expertise and knowledge of environmental impacts related to electricity production using a life cycle approach.

The proposal must include sufficient detail for reviewers to be able to assess the Contractors expertise and knowledge of electricity production in Canada and potential sources of electricity for the future.

The proposal must include details to assess the qualification and experience of the professional staff to be assigned to the project in relation to their involvement and responsibility in each activity of the project. Resumes of all staff that will work on the project, and back-up capabilities, must be submitted in the proposal. The resumes should clearly demonstrate the extent of knowledge and previous related work experience, research and analytical skills obtained from conducting similar studies for the professional staff assigned to the project. The qualifications and experience of the personnel assigned to the work will be evaluated. Reviewers will consider if the staff is experienced and qualified for the level of responsibility and involvement in each Task. At least one team member must have a minimum of a master's degree in environmental sciences or a related discipline, and other team members must have extensive knowledge of and experience in environmental impacts and framework development.

These specializations may have been obtained through an acceptable combination of education, training, and/or experience.

Management component

The proposal will summarize the qualifications and the experience of the Project Manager assigned to this project.

The experience of the Project Manager in managing projects of similar scope and budget must be demonstrated, as well as experience in working in close collaboration with a client.

Back-up capabilities for project management must be demonstrated and these capabilities will be evaluated.

Cost component

The following is a breakdown of the Professional Services (show fee structure all-inclusive of profit and overhead).

Contract Period:	**contract signing to 31 March 2015**		
Category of Personnel	**Per Diem Rates (A)**	**Estimated Level Of Effort (B)**	**Total (C) A + B = C**
Bidder's Grand Total Price =	**$**_____ (Transfer grand total to Section 2.1 of Offer of Service (page 6 above)		

(a) **Pricing**: All prices must be firm prices exclusive of GST/HST.

(b) **All Costs to be Included:** The financial bid must include all costs for the requirement described in the bid solicitation for the entire Contract Period, including any option years. The identification of all necessary equipment, software, peripherals, cabling and components required to meet the requirements of the bid solicitation and the associated costs of these items is the sole responsibility of the Bidder.

(c) **Blank Prices**: Bidders are requested to insert "$0.00" for any item for which it does not intend to charge or for items that are already included in other prices set out in the tables. If the Bidder leaves any price blank, Canada will treat the price as "$0.00" for evaluation purposes and may request that the Bidder confirm that the price is, in fact, $0.00. No bidder will be permitted to add or change a price as part of this confirmation. Any bidder who does not confirm that the price for a blank item is $0.00 will be declared non-responsive.

(d) Bidder's Grand Total Price will be transferred by bidder to Section 2.4 of Offer of Service (page 6 above).

APPENDIX A: Evaluation Criteria

Mandatory Criteria

For a proposal to be deemed technically compliant, the proposal must meet all mandatory criteria and the specified minimum requirements for each rated criteria. The Bidder with the highest combined rating for technical (75%) and price (25%) will be recommended for award of the contract. The combined rating (i.e. total points) will be determined using Equation 1 in Appendix B. If no acceptable bids are received, Environment Canada has the right to not award this contract.

The proposal must include a detailed description of the approach, methodology and the work plan describing how the Contractor would carry out the study to achieve the above objectives. Any relevant information to enable Environment Canada to adequately score the proposal based on the criteria listed below must be included.

	Mandatory Criteria	Met/Not Met
	EDUCATION	
M1	At least one team member MUST have as a minimum a master's degree in environmental sciences or a related discipline.	
	REFERENCES	
M2	The Proposal MUST include three (3) references, including name, title and full coordinates of clients of the Project Manager for similar or related assignments.	

Rated Criteria;

	Rated Criteria	Maximum Score	Score
	R1. APPROACH and METHODOLOGY		
R1 **(MAXIMUM POINTS: 17)** **(MINIMUM POINTS: 12**	**A)** Proposal demonstrates a comprehensive methodological approach to complete all aspects of the project including The proposed approach and method **(12)** The description of the technical approach and method is detailed enough to include a description of each step that will be undertaken to meet each Output in the Statement of Work and data sources. The approach and method are complete, realistic and technically feasible; the approach offers advantages with no tradeoffs; **(9)** The description of the technical approach and method, including a description of each step that will be undertaken to meet each Output in the Statement of Work and data sources, is a) missing some details **OR** b) not easily realistic or technically feasible. The approach offers some advantages; **(6)** The description of the technical approach and method is incomplete or not realistic or not technically feasible **OR** the approach is not convincingly advantageous; **(3)** The description of the technical approach and method is incomplete OR not realistic OR not technically feasible **OR** the approach offers no advantages; **(0)** Advantages to the proposed approach are not presented; **B)** Possible problems and challenges that could impact the quality and/or delivery of the project and proposed solutions **(5)** Possible problems and challenges that could arise that would impact the quality and/or delivery of the project are clearly described and demonstrate a realistic approach and understanding of the project; the proposed solutions are realistic and within the scope of the project. **(3)** Possible problems and challenges that could arise that would impact the quality and/or delivery of the project are not clearly described or are incomplete, i.e. that they are not entirely	**12 points** **5 points**	

	compatible with the proposed approach **OR** do not demonstrate a realistic understanding of the project. **(1)** Possible problems and challenges that could arise that would impact the quality and/or delivery of the project are poorly described. **(0)** Problems, challenges and solutions are not identified.		
	R2 WORK PLAN AND SCHEDULE		
R2 **(MAXIMUM: 23 POINTS)** **(MINIMUM POINTS: 16**	**A)** Proposal provides a detailed schedule and work plan which demonstrates a commitment to meeting the project objectives and deliverables on time and how quality assurance will be addressed thorough the project. The following rating scheme will be used to evaluate this criterion: **(15)** The bidding company provided a detailed Work Plan with a clear and logical understanding of the Objectives of the Statement of Work and quality assurance was addressed. **(10)** Objectives of the Statement of Work and quality assurance was addressed. Some details are missing **(5)**The bidding company provided a Work Plan with some understanding of the Objectives of the Statement of Work and quality assurance but is missing many details **(0)**The bidding company did not include a schedule or work plan **B)** In the work plan, qualified and experience personnel are assigned to each Tasks: **(8)** For each Task, all the personnel assigned to the Task are qualified and experienced to successfully complete the Task. **(6)** For each Task, there are enough qualified and experienced personnel assigned in a supervision role to ensure the successful completion of the Task. **(4)** For some Tasks, the personnel assigned are not qualified and experienced to ensure	**15 points** **8 points**	

	successful completion of the Task. **(2)** For most Tasks or for key tasks, the personnel assigned are not qualified and experienced to ensure successful completion of the Task. **(0)** The personnel assigned to each Task are not identified.		
	R3 PROJECT TEAM EXPERIENCE		
R3 (MAXIMUM POINTS: 30) **(MINIMUM POINTS: 21)**	**To facilitate the review process, contractors are encouraged to describe upfront the projects they intend to refer to demonstrate their experience in this section. They can then simply refer to a project and avoid duplications of project summaries.** **A)** Experience in conceptual framework development in the environmental field. A maximum of two (2) reference projects will be evaluated and each project will be evaluated as described below. If more than two (2) referenced projects are submitted, only the first two (2) in order of presentation will be evaluated. • **3 points per project** if the experience is related to the electricity sector; • **2 points per project** if the experience is related to the energy sector other than electricity • **1 point per project** if the experience is related to another sector. **B)** Experience with life-cycle analysis. A maximum of two (2) reference projects will be evaluated and each project will be evaluated as described below. If more than two (2) referenced projects are submitted, only the first two (2) in order of presentation will be evaluated. • **3 points per project** if completed a project of life cycle assessment for evaluating environmental impacts from energy production; • **2 points per project** if completed project of life cycle assessment for evaluating environmental impacts from other production; • **1 point per project** if completed a project evaluating environmental impacts from energy production using a life cycle approach; • **0,5 point per project** if completed a project evaluating environmental impacts from other production using a life cycle approach;	**6 points (maximum of 3 points per project)** **6 points (maximum of 3 points per project)**	

	C) Experience in the use and/or development of environmental indicators (or equivalent environmental impact quantification methods). A maximum of two (2) reference projects will be evaluated and each project will be evaluated as described below. If more than two (2) referenced projects are submitted, only the first two (2) in order of presentation will be evaluated. • **4 points per project** if the Proponent developed and published environmental indicators related energy production; • **3.5 points per project** if the Proponent developed an environmental indicator related energy production; • **3 points per project** if the Proponent Developed or used environmental indicators to assess and/or presents complex environmental impacts; • **2 points per project** if the Proponent used indicators in an existing framework to analyze of summarized environmental impacts; • **1 point per project** if the Proponent used indicators in isolation or has completed environmental Assessments.	**8 points (maximum of 4 points per project)**	
	D) Experience in the development of analytical framework or tools. A maximum of two (2) reference projects will be evaluated and each project will be evaluated as described below. If more than two (2) referenced projects are submitted, only the first two (2) in order of presentation will be evaluated. • **1 point per project** if the Proponent successfully completed a project that developed an analytical or tool for the use of ``average`` user.	**2 points (maximum of 1 point per project)**	
	E) Experience in assessing diverse environmental impacts from any type of electricity production. For each of the four impacts grouping listed below, a maximum of two (2) reference projects will be evaluated. If more than two (2) referenced projects are submitted, only the first two (2) in order of presentation will be evaluated. • **1 point per project per category** (the same project can be used for more than one category): **i)** GHG emissions and sinks, **ii)** local ecological impacts, **iii)** impact on air quality and **iv)**impact of hydrology or water quality.	**8 points (maximum of 1 point per project per category)**	

	R4 PROJECT MANAGER'S EXPERIENCE		
R4 (MAXIMUM POINTS: 25) **(MINIMUM POINTS: 17.5)**	Note: All referenced projects should have been for a minimum duration of six (6) months and should have been performed within the last ten (10) years from the date of bid closing. The bidder should provide a reference contact for each of the projects undertaken by the Project Manager. Each cited reference should include the following information: • Client Organization Name; • Project description including role played by the Bidder; • Project duration, including start and end dates; • Client Contact name, position, and current phone number and email address **A)** The bidder should demonstrate, using project description(s), that the proposed Project Manager has the following experience on projects of similar scope and budget related to environmental impacts from energy production. A maximum of two (2) reference projects will be evaluated as described below. If the bidder submits more than two (2) referenced projects, only the first two (2) in order of presentation will be evaluated. (4.5) The project manager managed project of similar or greater scope and budget related to environmental impacts from energy production. (3) The scope <u>or</u> budgets is similar in environmental impacts from energy production **OR** the scope and budget are similar but unrelated to environmental impacts from energy production. (1.5) The scope and budget of the referenced project are not similar **OR** the scope <u>or</u> budgets is similar but unrelated to environmental impacts from energy production. (0) No reference project provided. **B)** The bidder should demonstrate, using project description(s), that the Project Manager has experience managing complex Research and Development project, including ability to provide leadership, coordination or management within a	**9 points (maximum of 4.5 points per project)** **9 points (maximum of 4.5 points per project)**	

	multi-partnership team setting. A maximum of two (2) reference projects will be evaluated as described below. If the bidder submits more than two (2) referenced projects, only the first two (2) in order of presentation will be evaluated. **(4.5)** The Project Manager managed a complex Research and Development project, provided leadership, coordination or management within a multi-partnership team setting that is comparable to the Advisory Committee structure; **(3)** The Project Manager managed a complex Research and Development project, provided leadership, coordination or management but the multi-partnership team setting is not comparable to the Advisory Committee structure. **(1.5)** The Project Manager has little experience in managing complex Research and Development project, provided leadership, coordination or management. **(0)** No reference project provided.		
	C) The bidder should demonstrate, using project description(s), that the Project Manager has experience working in close collaboration with clients. A maximum of two (2) reference projects will be evaluated as described below. If the bidder submits more than two (2) referenced projects, only the first two (2) in order of presentation will be evaluated. **(2.5)** The project manager has experience in working in close collaboration with clients. **(1.5)** The project manager has experience in working with clients, but not in close collaboration. **(0)** No reference project provided.	**5 points (maximum of 2.5 points per project**)	
	D) Details on back-up arrangements for the project Manager and their capabilities **(2)** The arrangements for the back-up Project Manager are presented and the back-up project manager is qualified to act as project manager. **(1)** The back-up arrangements are not clearly presented OR the proposed back-up project manager does not meet many of the project management requirements. **(0)** There is no mention of the back-up project manager or of his/her qualifications.	**2 points**	

	R5 OVERALL QUALITY OF THE PROPOSAL		
R5 (MAXIMUM POINTS: 5)	Overall quality of the proposal, clarity, organization and logic with respect to the Request For Proposal (RFP) requirements	**5 points**	
The minimum points required for R1 is 12/17 **The minimum points required for R2 is 16/23** **The minimum points required for R3 is 21/30** **The minimum points required for R4 is 17.5/25**		**100 points**	

APPENDIX "B"

Selection of Contractor

Technical Rating

The proposal that obtained the highest score for the technical evaluation, as presented in appendix A, will be assigned a weight of 75%. All other proposals that meet the minimum score requirements for the technical evaluation will be prorated.

Basis of Selection (Highest combined Technical Merit (75%) and Price (25%)

1. To be declared responsive, a bid must:
    a. comply with all the requirements of the bid solicitation; and
    b. meet all mandatory criteria; and
    c. obtain the required minimum points required from **R1 to R4** for the technical evaluation criteria which are subject to point rating.

Bids not meeting "(a) or (b) or (c)" will be declared non-responsive

The *responsive* (compliant) Bidder with the highest combined rating of Technical (75%) and price (25%) will be recommended for award of a contract. Contractor Selection Method is based on the Responsive Bidder achieving the highest total points. See the following example below.

Formula:

$$\frac{\text{Bidder's Rated Score}}{\text{Highest Bidder's Rated Score}} \times 75 + \frac{\text{Lowest Bidder Price}}{\text{Bidder's Price}} \times 25$$

Example:

Description	Bidder A	Bidder B	Bidder C
Bidder Proposal Points Received	95	85	75
Bidder Proposed Price	$75,000	$81,000	$71,000

Final Evaluation Score Calculation:

Bidder	Points for Proposal Score	Points for Price	Total Points
Bidder A	**(95 / 95) x 75 = 75**	**(71,000 / 75,000) x 25 = 23.7**	**98.7**
Bidder B	**(85 / 95) x 75 = 67.1**	**(71,000 / 81,000) x 25 = 21.9**	**89.0**
Bidder C	**(75 / 95) x 75 = 59.2**	**(71,000 / 71,000) x 25 = 25**	**84.2**

In this example, Bidder A will be recommended for Contract award.

In the event of a tie, the proposal receiving the highest score for the technical evaluation will be selected.