



Return Bids to :

Retourner Les Soumissions à :
Natural Resources Canada
Len.Pizzi@Canada.ca

Request for Proposal (RFP)
Demande de proposition (DDP)

Proposal To: Natural Resources 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 à: Ressources Naturelles 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

Issuing Office – Bureau de distribution

Finance and Procurement Management
Branch
Natural Resources Canada
183 Longwood Road South
Hamilton, ON
L8P 0A5

Title – Sujet	
Solubility of Rare Earth Sulphates	
Solicitation No. – No de l'invitation NRCan-5000033874	Date October 5, 2017
Requisition Reference No. - N° de la demande 142315	
Solicitation Closes – L'invitation prend fin at – à 02:00 PM EST on – le November 15, 2017	
Address Enquiries to: - Adresse toutes questions à: Len.pizzi@canada.ca	
Telephone No. – No de telephone (905) 645-0676	Fax No. – No. de Fax (905) 645-0831
Destination – of Goods and Services: Destination – des biens et services: Natural Resources Canada 555 Booth Street Ottawa, ON K1A 0G1	
Security – Sécurité There is no security requirements associated with this requirement.	
Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur Telephone No.:- No. de téléphone: Facsimile No.:- No. 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 _____



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PART 1 - GENERAL INFORMATION

1.1 Introduction

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

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

The Annexes include the Statement of Work, the Basis of Payment, and any other annexes.

The Appendixes include the Evaluation Criteria and the Financial Proposal Form.

1.2 Summary

By means of the RFP, NRCan is seeking proposals from bidders for....

- 1.2.1 to complete scientific tasks to determine the solubility of rare earth sulphates.
- 1.2.2 The requirement is subject to the provisions of the North American Free Trade Agreement (NAFTA), and the Canadian Free Trade Agreement (CFTA), Canada-Chile Free Trade Agreement (CCFTA), Canada-Honduras Free Trade Agreement (CHFTA), Canada-Korea Free Trade Agreement (CKFTA), Canada-Colombia Free Trade Agreement (FTA) and Canada-Panama Free Trade Agreement.

1.3 Debriefings

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



PART 2 - BIDDER INSTRUCTIONS

2.1 Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the [Standard Acquisition Clauses and Conditions Manual](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) (<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](#) (2017-04-27) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation with the modifications to the text below. If there is a conflict between the provisions of 2003 and this document, this document prevails.

- **In the complete text content (except Section 3) Delete:** Public Works and Government Services Canada” and **Insert:** “Natural Resources Canada.” **Delete:** “PWGSC” and **Insert:** “NRCan”
- **Section 2: Delete:** “Suppliers are required to” and **Insert:** “It is suggested that suppliers”
- **Subsection 1 of Section 8: Delete entirely**
- **Under Subsection 2 of Section 20: Not applicable**

2.2 Submission of Bids

It is the Bidders responsibility to ensure that proposals are sent to the following e-mail address, by the time and date indicated on page 1 of this RFP document:

len.pizzi@canada.ca

IMPORTANT

It is requested that you write the following information in “Subject” of the e-mail:

NRCan-5000033874 - Solubility of Rare Earth Sulphates

Due to the nature of the bid solicitation, bids transmitted by mail or facsimile to NRCan will not be accepted.

NRCan will not assume responsibility for proposals directed to any other location.

The onus is on the Bidder to ensure that the proposal is submitted correctly to the above address. Not complying with the above instructions may result in NRCan’s inability to ascertain reception date and/or to consider the bid prior to contract award. Therefore, NRCan reserves the right to reject any proposal not complying with these instructions.

2.3 Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than six (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 question(s) or may request that the Bidder do so, so that the proprietary nature of the question(s) is



eliminated and the enquiry can be answered to all Bidders. Enquiries not submitted in a form that can be distributed to all Bidders may not be answered by Canada.

2.4 Applicable Laws

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

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

2.5 Improvement of Requirement During Solicitation Period

Should bidders consider that the specifications or Statement of Work contained in the bid solicitation could be improved technically or technologically, bidders are invited to make suggestions, in writing, to the Contracting Authority named in the bid solicitation. Bidders must clearly outline the suggested improvement as well as the reason for the suggestion. Suggestions that do not restrict the level of competition nor favour a particular bidder will be given consideration provided they are submitted to the Contracting Authority at least five (5) days before the bid closing date. Canada will have the right to accept or reject any or all suggestions.

2.6 Basis for Canada's Ownership of Intellectual Property

Natural Resources Canada has determined that any intellectual property rights arising from the performance of the Work under the resulting contract will belong to Canada, on the following grounds:

- the main purpose of the contract, or of the deliverables contracted for, is to generate knowledge and information for public dissemination;



PART 3 - BID PREPARATION INSTRUCTIONS

3.1 Bid Preparation Instructions

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

Section I: Technical Bid (1 electronic copy)

Section II: Financial Bid (1 electronic copy) in a separate file and document

Section III: Certifications (1 electronic copy)

Prices should appear in the financial bid only. No prices should be indicated in any other section of the bid.

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

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

Section I: Technical Bid

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

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

Section II: Financial Bid

Bidders must submit their financial bid in accordance with the Financial Proposal Form in Appendix "2". The total amount of Applicable Taxes must be shown separately.

Exchange Rate Fluctuation

C3011T (2013-11-06), Exchange Rate Fluctuation

Section III: Certifications

Bidders must submit the certifications required under Part 5.



PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

4.1 Evaluation Procedures

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

4.1.1 Technical Evaluation

Mandatory and point rated technical evaluation criteria are included in Appendix "1" – Evaluation Criteria.

4.1.2 Financial Evaluation

Mandatory financial evaluation criteria are included in Appendix "2" – Evaluation Criteria.

4.2 Basis of Selection

4.2.1 Highest Rated Within Budget

1. To be declared responsive, a bid must:
 - a. comply with all the requirements of the bid solicitation;
 - b. meet all mandatory technical evaluation criteria; and
 - c. obtain the required minimum of 70 points overall for the technical evaluation criteria which are subject to point rating. The rating is performed on a scale of 100 points.
2. Bids not meeting (a) or (b) or (c) will be declared non responsive. The responsive bid with the highest number of points will be recommended for award of a contract, provided that the total evaluated price does not exceed the budget available for this requirement.



PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION

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

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

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

5.1 Certifications Required with the Bid

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

5.1.1 Declaration of Convicted Offences

In accordance with the [Ineligibility and Suspension Policy \(http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html\)](http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html), the Bidder must provide with its bid the required documentation, as applicable, to be given further consideration in the procurement process.

5.2 Certifications Precedent to Contract Award and Additional Information

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

5.2.1 Integrity Provisions – List of Names

In accordance with the [Ineligibility and Suspension Policy \(http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html\)](http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html), the Bidder must provide with its bid the required documentation, as applicable, to be given further consideration in the procurement process.

- Bidders who are incorporated, including those bidding as a joint venture, must provide a complete list of names of all individuals who are currently directors of the Bidder or, in the case of a private company, the owners of the company.
- Bidders bidding as sole proprietorship, as well as those bidding as a joint venture, must provide the name of the owner(s).
- Bidders bidding as partnerships do not need to provide lists of names.

Name of Bidder: _____

OR

Name of each member of the joint venture:

Member 1: _____



Member 2: _____
Member 3: _____
Member 4: _____

Identification of the administrators/owners:

SURNAME	NAME	TITLE

5.2.2 Federal Contractors Program for Employment Equity - Bid Certification

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

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

5.2.3 Status and Availability of Resources

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

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

5.2.4 Education and Experience



The Bidder certifies that all the information provided in the résumés and supporting material submitted with its bid, particularly the information pertaining to education, achievements, experience and work history, has been verified by the Bidder to be true and accurate. Furthermore, the Bidder warrants that every individual proposed by the Bidder for the requirement is capable of performing the Work described in the resulting contract.

5.2.5 Former Public Servant

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

Definitions

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

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

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

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

Former Public Servant in Receipt of a Pension

As per 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 FPSs in receipt of a pension, as applicable:

- a. name of former public servant; _____



b. date of termination of employment or retirement from the Public Service. _____

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

Work Force Adjustment Directive

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

If so, the Bidder must provide the following information:

a. name of former public servant; _____

b. conditions of the lump sum payment incentive; _____

c. date of termination of employment; _____

d. amount of lump sum payment; _____

e. rate of pay on which lump sum payment is based; _____

f. period of lump sum payment including:

- start date _____
- end date _____
- and number of weeks _____

g. number and amount (professional fees) of other contracts subject to the restrictions of a work force adjustment program.

Professional fees	Amount
_____	_____
_____	_____

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

5.2.6 Aboriginal Designation

Who is eligible?

- a) An Aboriginal business, which can be:
- i. a band as defined by the Indian Act
 - ii. a sole proprietorship
 - iii. a limited company
 - iv. a co-operative
 - v. a partnership
 - vi. a not-for-profit organization



in which Aboriginal persons have at least 51 percent ownership and control,

OR

- b. A joint venture consisting of two or more Aboriginal businesses or an Aboriginal business and a non-Aboriginal business(es), provided that the Aboriginal business(es) has at least 51 percent ownership and control of the joint venture.

When an Aboriginal business has six or more full-time employees at the date of submitting the bid, at least thirty-three percent of them must be Aboriginal persons, and this ratio must be maintained throughout the duration of the contract.

The bidder must certify in its submitted bid that it is an Aboriginal business or a joint venture constituted as described above.

- Our Company is NOT an Aboriginal Firm, as identified above.
- Our Company is an Aboriginal Firm, as identified above. The supplier must complete the certificate in the appropriate clause below.

SACC Manual clauses [A3000T](#), [A3001T](#), [M3030T](#), [M9030T](#), [S3035T](#) and [S3036T](#) contain a certification that suppliers must complete and submit with their bid/offer/arrangement. Failure by suppliers to submit this completed certification form with their bids/offers/arrangements will render the bid/offer/arrangement non-responsive.



PART 6 - SECURITY REQUIREMENTS

6.1 Security Requirements

Not applicable.



PART 7 - RESULTING CONTRACT CLAUSES

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

7.1 Statement of Work

The Contractor must perform the Work in accordance with the Statement of Work at Annex " ____ " and the Contractor's technical bid entitled _____, dated _____.

7.2 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)(<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

7.2.1 General Conditions

[2010B](#) (2016-04-04), General Conditions – Professional Services - Medium Complexity, apply to and form part of the Contract.

- As applicable, replace references to Public Works and Government Services Canada (PWGSC) with Natural Resources Canada (NRCan).

7.2.2 Supplemental General Conditions

The following clauses apply to this contract:

[4007](#) (2010-08-16), Canada to Own Intellectual Property Rights in Foreground Information

7.3 Dispute Resolution

Mediation

If a dispute arising from this contract cannot be settled amicably through negotiation, then the parties agree in good faith to submit the dispute to mediation as administered by the Arbitration and Mediation Institute of Canada Inc. (AMIC). The parties acknowledge receipt of the rules of AMIC. The cost of mediation shall be borne equally by the parties.

Arbitration

If the parties cannot resolve the dispute through mediation within sixty (60) days, the parties agree to submit the dispute to arbitration pursuant to the Commercial Arbitration Act (Canada). The party requesting such arbitration shall do so by written notice to the other party/parties. The cost of the arbitration and fees of the arbitrator shall be borne equally by the parties. The arbitration shall take place in the city where the contractor carries on business before a single arbitrator to be chosen jointly by the parties. If the parties cannot agree on the choice of arbitrator within thirty (30) days of written notice to submit the dispute to arbitration, each party will choose a representative who will select the arbitrator. The parties may determine the procedure to be followed by the arbitrator in conducting the proceedings, or may ask the arbitrator to do so. The arbitrator shall issue a written award within thirty (30) days of hearing the parties. The award may be entered in any court having jurisdiction and enforced as a judgment of that court.

Meaning of "Dispute"



The parties agree that the word "dispute" in this clause refers to a dispute of fact or of law, other than a dispute of public law.

The parties understand that the Procurement Ombudsman appointed pursuant to Subsection 22.1(1) of the *Department of Public Works and Government Services Act* will, on request or consent of the parties to participate in an alternative dispute resolution process to resolve any dispute between the parties respecting the interpretation or application of a term and condition of this contract and their consent to bear the cost of such process, provide to the parties a proposal for an alternative dispute resolution process to resolve their dispute. The Office of the Procurement Ombudsman may be contacted by telephone at 1-866-734-5169 or by e-mail at boa.opo@boa.opo.gc.ca.

7.4 Security Requirements

7.4.1 There is no security requirement applicable to this Contract.

7.5 Term of Contract

7.5.1 Period of the Contract

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

7.6 Comprehensive Land Claims Agreements (CLCAs)

Not applicable.

7.7 Authorities

7.7.1 Contracting Authority

The Contracting Authority for the Contract is:

Name: Len Pizzi
Title: Procurement Officer
Organization: Natural Resources Canada
Address: 183 Longwood Road South, Hamilton, ON, L8P 0A5
Telephone: (905) 645-0676
Facsimile: (905) 645-0831
E-mail address: len.pizzi@canada.ca

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

7.7.2 Project Authority (to be provided at contract award)

The Project Authority for the Contract is:

Name:
Title:
Organization:
Address:
Telephone:
Facsimile:
E-mail address:



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.

7.8 Proactive Disclosure of Contracts with Former Public Servants

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

7.9 Payment

7.9.1 Basis of Payment – Firm Price, Firm Unit Price(S) or Firm Lot Price(s)

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid a firm price, as specified in Annex “___” for a cost of \$ _____. Customs duties are included and Applicable Taxes are extra.

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.

7.9.2 Method of Payment

Milestone Payments

Canada will make milestone payments in accordance with the Schedule of Milestones detailed in the Contract and the payment provisions of the Contract if:

- a. an accurate and complete claim for payment, and any other document required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
- b. all work associated with the milestone and as applicable any deliverable required has been completed and accepted by Canada.

7.10 Invoicing Instructions

Invoices shall be submitted using **one of the following methods:**

<p><u>E-mail:</u></p> <p>NRCan.invoice_imaging-service_dimagerie_des_factures.RNCan@canada.ca</p> <p>Note: Attach “PDF” file. No other formats will be accepted</p>
OR
<p><u>Fax:</u></p> <p>Local NCR region: 613-947-0987 Toll-free: 1-877-947-0987</p> <p>Note:</p>



Use highest quality settings available.

Please do not submit invoices using more than one method as this will not expedite payment.

Invoices and all documents relating to a contract must be submitted on the Contractor's own form and shall bear the following reference numbers: Contract number: _____

Invoicing Instructions to suppliers: <http://www.nrcan.gc.ca/procurement/3485>

7.11 Certifications

7.11.1 Compliance

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

7.12 Applicable Laws

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

7.13 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 supplemental general conditions **4007** - Canada to Own Intellectual Property Rights in Foreground Information (2010-08-16);
- (c) the general conditions **2010B** Professional Services - Medium Complexity (2016-04-04);
- (d) Annex A, Statement of Work;
- (e) Annex B, Basis of Payment; and
- (f) the Contractor's bid dated _____.

7.14 Foreign Nationals (Canadian Contractor **OR** Foreign Contractor)

SACC Manual clause [A2000C](#) (2006-06-16) Foreign Nationals (Canadian Contractor)

OR

SACC Manual clause [A2001C](#) (2006-06-16) Foreign Nationals (Foreign Contractor)

7.15 Insurance

The Contractor is responsible for deciding if insurance coverage is necessary to fulfill its obligation under the Contract and to ensure compliance with any applicable law. Any insurance acquired or maintained by the Contractor is at its own expense and for its own benefit and protection. It does not release the Contractor from or reduce its liability under the Contract.



7.16 Contract Administration

The parties understand that the Procurement Ombudsman appointed pursuant to Subsection 22.1(1) of the *Department of Public Works and Government Services Act* will review a complaint filed by [*the supplier or the contractor or the name of the entity awarded this contract*] respecting administration of this contract if the requirements of Subsection 22.2(1) of the *Department of Public Works and Government Services Act* and Sections 15 and 16 of the *Procurement Ombudsman Regulations* have been met, and the interpretation and application of the terms and conditions and the scope of the work of this contract are not in dispute. The Office of the Procurement Ombudsman may be contacted by telephone at 1-866-734-5169 or by e-mail at boa.opo@boa.opo.gc.ca.



ANNEX "A" - STATEMENT OF WORK

Solubility of Rare Earth Sulphates

1.1 Background

In recent years, a steady, reliable, and secure supply of critical metals has become increasingly important to major industrialized economies that seek to sustain their industrial base and develop advanced technologies, such as clean energy. In light of this, Canada, with its significant critical metal reserves, has an opportunity to supply some of the global demand for critical metals. However, to transition from promising mineral deposits to marketable products, investment in fundamental R&D and expertise is needed to address the complex technological challenges around the production, separation and processing of critical metals, and to better understand the global market for these key commodities.

Rare earth elements (REE) represent an opportunity for Canada to enter an emerging and globally strategic market. However, the metallurgy for Canadian ores containing REE involves a complex sequence of individual separation, refinement, alloying and formation stages before they can be used in the production of permanent magnets, consumer electronics and other high value-added high-tech products. Natural Resources Canada has been directed through Budget 2015 to undertake a significant effort to support the development of rare earth elements and chromite in order to maximize Canadian value and benefits from these deposits.

Rare earth ores and concentrates are commonly processed in sulphate media, either via sulphuric acid baking or direct sulphuric acid leaching. The solubility of the resulting rare earth sulphate salts can greatly affect the overall processing sequence, as some of the solubilities seem to be low (e.g., solubility of $\text{La}_2(\text{SO}_4)_3$ is only 13 g/L at 60°C) whereas others are relatively high (e.g., solubility of $\text{Lu}_2(\text{SO}_4)_3$ is reported to be 580 g/L at 25°C). Low solubilities can reduce rare earth recoveries in high pulp density leaching circuits, especially at the higher temperatures commonly used for acid baking and/or leaching. In processing investigations, it is often difficult to determine if reduced recoveries are due to the high pulp density conditions themselves or to other factors such as solubility limitations of the simple REE sulphate salts. Low sulphate solubilities at the more elevated temperatures could also result in the contamination of the oxalate, hydroxide or phosphate precipitates used to collect the dissolved rare earths from the initial processing solutions. This aspect is especially important because high temperatures are usually desirable for the precipitation reaction to ensure better crystallinity and filtration. The solubilities of the simple sulphate salts decrease significantly with increasing temperatures, unlike the corresponding chloride salts where the solubilities seem to be consistently "high" and increase with increasing temperatures. That is, rare earth solubilities in chloride media are normally not a concern. Some published data on the solubility of the simple rare earth sulphates are available. In many instances, it appears that solubility data are reported at only one or two temperatures, it is often not clear if true equilibrium values are reported, and the effect of residual sulphuric acid is largely unknown.

Precipitation of the alkali (Na, K, NH_4)-rare earth double sulphate salts (e.g., $\text{NaNd}(\text{SO}_4)_2 \cdot \text{H}_2\text{O}$) can severely limit the dissolution of the light rare earth elements, and precipitation of the light rare earths in the presence of excess alkali has been used commercially to effect an initial separation of the light rare earths from the heavy rare earths. Although it is known that the solubilities of the alkali-rare earth double sulphate salts decrease significantly with increasing temperatures, detailed information on the solubility of the alkali-rare earth double sulphates is lacking. As in simple rare earth sulphates, it seems that solubility data are reported at only one or two temperatures, and the presence of excess alkali sulphates, from the synthesis of the alkali-rare earth double sulphate salt, is often not determined. A compendium of the solubilities of the simple rare earth sulphates and the alkali-rare earth double sulphates over a broad temperature range (and including the effect of excess alkali sulphates on the solubility), would be beneficial to the Canadian rare earth industry and to researchers in the field.



1.2 Work to be performed

To address this need, the following studies are proposed.

1) Comprehensive Literature Review

Note that translation of foreign language papers will likely be necessary, and that such translations are considered to be part of the contract scope.

a) Simple rare earth sulphate salts

The published solubilities of the simple rare earth sulphate salts in water and in sulphuric acid media will be reviewed via a detailed comprehensive search of the literature. The published data will be compared and reported, as a function of temperature, and where relevant, as a function of the acid concentration. Based on the reviewed information, a decision will be made to report the data either as g of REE sulphate per litre or as g REE sulphate/100 g of saturated solution. All of the published data will be compared on a consistent basis and reported in tabular and graphical forms. Notes concerning residence time, possible solution impurity phases and whether the data were obtained at “equilibrium” must be included. The literature review is a significant undertaking which will be separately reported and will be of relevance and use to the rare earth element industry. The report will contain a listing of all the reviewed documents.

b) Sodium, potassium and ammonium rare earth double salts

The published solubilities of the Na, K and NH₄ rare earth double sulphate salts in water and in the presence of excess alkali sulphate will be reviewed via a detailed comprehensive search of the literature. Only the disulphate species (e.g., NaNd(SO₄)₂·H₂O) need be considered, and for the purpose of this study, the “rare earths” are assumed to include lanthanum and yttrium, but not promethium. It will likely be necessary to obtain translations of relevant publications. The published data will be compared and reported in tabular and graphical form, as a function of temperature and alkali sulphate concentration. Based on the reviewed information, a decision will be made to report the data either as g of REE sulphate per litre or as g REE sulphate/100 g of saturated solution.

2) Solubility Determinations of Trivalent Rare Earth Sulphate Salts

Note that suppliers should bear in mind the cost of REE chemicals at the necessary purity when designing and scaling their experimental protocols. The cost of the required chemicals is included in the contract value.

To complement the published data, the solubilities of all the trivalent rare earth sulphate salts (of at least 99.9% purity) in water will be measured over the temperature range from 20 to 95°C. Note that solubility measurements of the alkali-REE double sulphate salts are NOT part of this request for proposals. The densities of the associated saturated solutions at each sampling temperature will also be determined. For the purpose of this study, the “rare earths” include cerium to lutetium, lanthanum and yttrium, but not promethium. It is important that the solubilities of all the simple rare earth sulphate salts be measured, as different rare earths are prevalent in different ores and concentrates and researchers often focus on a variety of rare earth species. Initial tests will determine the necessary saturation times at low (25°C), medium (50°C) and high temperatures (85°C). Subsequent measurements will be carried out at 10°C intervals, on heating and cooling, and similar results must be attained upon heating and cooling to demonstrate that equilibrium is attained. In addition, the effect of five concentrations of H₂SO₄ (0.05, 0.1, 0.2, 0.3, 0.5 M) on the solubility of one light rare earth (neodymium) and one heavy rare earth (holmium) will be ascertained. X-ray diffraction analyses of the saturating solid phase at the various temperatures will be carried out to assess the degree of hydration of the various rare earth sulphate salts as the temperature is increased and decreased. Variations in the degree of hydration may explain possible “breaks” in the solubility curves during heating and cooling. It is appreciated that the oxidation of Ce³⁺



may occur over the lengthy course of the measurements. It is also recognized that the solubilities of some of the heavy rare earth simple sulphates are relatively high and may require different solubility apparatus than that used for the light rare earths. Methods to address these problems are required. The measured solubilities will be compared in tabular or graphical form with the data generated in the literature review above, and discussion of possible differences between the current and previously published results must be provided.

1.3 Contact person

After the contract has been signed, NRCan will identify a resource liaison that the supplier may contact if more information is needed.

1.4 Deliverables

Deliverable 1: An initial meeting within five (5) working days of signing the contract. The date, type (telephone, video-conference, WebEx, in person) and place of the meeting (if in person) will be decided jointly between NRCan and the supplier. The objective of the meeting is to discuss the proposal, in general, and to clarify the schedule and the work breakdown table.

Deliverable 2: Progress Review Meetings as per schedule determined during Deliverable 1.

Deliverable 3: Progress Report. The Contractor must provide a written progress mid way through the contract that, as a minimum, contains a list of references being reviewed for the literature review along with methodology and initial results of the solubility measurements.

Deliverable 4: Draft Report. The Contractor must provide one electronic copy of the draft report which must contain all the study findings as per the Statement of Work at least three weeks before the contract completion date. Natural Resources Canada will review and provide comments to the Contractor within five (5) working days after receiving the draft report.

Deliverable 5: Final Report. Submission of the final report (in English) at the end of the project, which must address all changes/comments provided by NRCan in Deliverable 4. One electronic copy must be received by NRCan no later than the contract completion date.

1.5 Schedule

Task	Dates
Initial Meeting (Deliverable #1)	Within 5 working days of Contract Award Date (CAD).
Progress Meetings (Deliverable #2)	As per schedule decided in Deliverable 1
Progress Report (Deliverable #3)	Mid way through contract
Draft Report (Deliverable #4)	At least three (3) weeks prior to contract completion
Final report (Deliverable #5)	Prior to contract completion



ANNEX "B" - BASIS OF PAYMENT

(to be completed at contract award)



APPENDIX “1” - EVALUATION CRITERIA

Bidders are advised to address these criteria in the following order and in sufficient depth in their proposals to enable a thorough assessment. NRCan’s assessment will be based solely on the information contained within the proposal. NRCan may confirm information or seek clarification from bidders.

Bidders are advised that only listing experience without providing any supporting data to describe responsibilities, duties and relevance to the criteria will not be considered demonstrated for the purpose of this evaluation.

The Bidder should provide complete details as to where, when (month and year) and how (through which activities/ responsibilities) the stated qualifications/experience were obtained. Experience gained during formal education shall not be considered work experience. All criteria for work experience shall be obtained in a legitimate work environment as opposed to an educational setting. Co-op terms are considered work experience provided they are related to the required services.

Bidders are also advised that the month(s) of experience listed for a project whose time frame overlaps that of another referenced project will only be counted once. For example: project one time frame is July 2001 to December 2001; project two time frame is October 2001 to January 2002; the total months of experience for these two project references is seven (7) months.

1. TECHNICAL CRITERIA

1.1 MANDATORY EVALUATION CRITERIA

The Mandatory Criteria listed below will be evaluated on a simple pass/fail basis. Proposals which fail to meet the mandatory criteria will be deemed non-responsive.

Criterion ID	Mandatory Criteria	Proposal Page #	Pass/Fail
M1	<p>Work Plan</p> <p>The bidder must provide a proposal including a detailed work plan for fulfilling the mandate, specifically describing the work to be done to meet the requirements and a full description of how all deliverables described in this Statement of Work will be met.</p> <p>The work plan must include:</p> <ul style="list-style-type: none"> a) Identification of the Project Manager (primary contact); b) Detailed information on the work to be performed, a complete description of the activities to be carried out, equipment, the resources to be used, and anticipated timelines; and c) A table showing the breakdown of work including the level of effort anticipated on each task, deliverable dates (as weeks after contract signing) and the resource name(s) attached to each task. 		



Criterion ID	Mandatory Criteria	Proposal Page #	Pass/Fail
M2	<p>Bidders Proposed Resources Experience</p> <p>Each of the following must be met and clearly demonstrated:</p> <ol style="list-style-type: none"> 1) At least one resource with experience performing <u>comprehensive</u> literature searches, summarizing content and assessing the reliability of technical data. (Minimum 1 publication within the last ten (10) years) 2) Demonstrated ability to obtain and translate literature from non-English sources. 3) The recipient must clearly demonstrate experience in solubility measurements as evidenced by publications of solubility data that include detailed solubility measurements and an understanding of the effect of solution speciation on solubilities in sulphate solutions. At least one journal publication containing suitable solubility measurement as required in the scope of services to be appended. 4) The recipient must also demonstrate the availability of suitable solubility testing apparatus and knowledge of its use, as well as apparatus to determine the saturating phase in each temperature range that affects the slope of the solubility curve. 5) Bidders <u>must</u> provide a curriculum vitae (CV) for each proposed resource. For experience, the bidder must indicate the name of the resource and demonstrate how they meet the criteria in the curriculum vitae (CV). An individual can address more than one of the items above if qualified. 		
M3	<p>Submission of general description of the work to be performed must not exceed fifteen (20) pages in length</p> <p>The general description of the work to be performed (bidder's response) must not exceed twenty (20) pages, CVs and realized projects description excluded. If the work description exceeds the maximum number of pages, only the first twenty (20) pages will be considered at the proposal evaluation stage.</p>		

1.2 EVALUATION OF RATED CRITERIA

The criteria contained herein will be used by NRCan to evaluate each proposal that has met all of the mandatory criteria.

Proposals must achieve the stated minimum points required for each rated criterion to be assessed as



responsive under the point rated technical criteria section; proposals not meeting the minimum required points will be deemed non-responsive.

Proposals will be evaluated based on the following criteria:

Criterion ID	Point Rated Technical Criteria	Minimum Points /Maximum Points	Proposal Page #
R1	<p>Bidders Proposed Resources Experience conducting detailed literature reviews, organizing and compiling of data, and identification of data gaps and research needs. <u>Project examples with brief description to be provided.</u></p> <p>Description demonstrates the experience (2 points per project up to 10)</p>	10	
R2	<p>Bidders Proposed Resources Experience completing solubility studies as evidenced by publications of solubility data. <u>Project examples with brief description to be provided.</u></p> <p>Description demonstrates the experience (4 points per project up to 20)</p>	20	
R3	<p>Approach and Methods bidder must present a method clearly demonstrating an approach that will lead to the successful completion of the project.</p> <p>The bidders plan clearly describes their approach to completing the requirements outlined in the Statement of Work and includes:</p> <ol style="list-style-type: none"> 1. types and sources of data and information to be collected for the literature review; 2. methods of ensuring that non-English literature is included; 3. methods of comparing literature data and addressing inconsistencies in the data reported for each rare earth sulphate; 4. equipment that will be utilized for solubility testing 5. Methodology for carrying out solubility studies and evaluating the laboratory data obtained; 6. solutions for overcoming challenges, mitigating risks and ensuring deliverables are met on time. <p><u>Breakdown of points</u></p> <ul style="list-style-type: none"> - bidders plan addresses none of the requested items (0 points) - bidders plan clearly and thoroughly addresses only one of the requested items (1 - 10 points) - bidders plan clearly and thoroughly addresses only two of the requested items (11 - 20 points) - bidders plan clearly and thoroughly addresses only three of the requested items (21 - 30 points) - bidders plan clearly and thoroughly addresses only four of the requested items (31 - 40 points) 	60	



	<ul style="list-style-type: none"> - bidders plan clearly and thoroughly addresses only five of the requested items (41 - 50 points) - bidders plan clearly addresses all of the requested items (51 - 60 points) 		
R4	<p>Approach and Methods bidders plan identifies tasks, resources, milestones and schedule <u>in table format</u> that will satisfy the requirements of the Statement of Work</p> <ul style="list-style-type: none"> - proposal is missing information related to tasks, resources, milestones and schedule for all of the requirements in the Statement of Work (0 points) - proposal is missing information related to tasks, resources, milestones and schedule for many of the requirements in the Statement of Work (3 points) - proposal is missing information related to tasks, resources, milestones and schedule for some of the requirements in the Statement of Work (5 points) - proposal clearly identifies the required tasks, resources, milestones and schedule for all requirements in the Statement of Work (10 points) 	10	
Total points		100	

2. FINANCIAL CRITERIA

2.1 MANDATORY FINANCIAL CRITERIA

Bidders must provide financial details as requested in this appendix. Proposals which do not contain pricing details as requested below shall be considered incomplete and non-responsive.

2.1.1 FUNDING LIMITATION

The maximum funding available for the Contract resulting from the bid solicitation is \$105,000.00 (Applicable Taxes extra). Bids valued in excess of this amount will be considered non-responsive. This disclosure does not commit Canada to pay the maximum funding available.

This maximum **included a) the Price to perform the Work, b) any Travel and Living and c) Miscellaneous Expenses that may be required.**

Any bids received in excess of this maximum funding will be automatically deemed non-responsive and will not be evaluated.



APPENDIX “2” – FINANCIAL PROPOSAL FORM

1. FIRM PRICE - Milestone Payments

Bidder tendered all-inclusive firm price to perform the work is in Canadian funds, applicable taxes excluded. Any Travel and Living Expenses and other miscellaneous expenses must be included in the firm price.

Milestone #	Description of Milestone	Milestone Firm Price (applicable taxes excluded)
1	Progress Meetings (Deliverable #2) – 10% of the total	\$ _____
2	Progress Report (Deliverable #3) – 10% of the total	\$ _____
3	Draft Report (Deliverable #4) – 30% of the total	\$ _____
4	Final report (Deliverable #5) – 50% of the total	\$ _____
Total Firm Price for Financial Proposal Evaluation:		\$ _____