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**RETURN RESPONSES TO:
RETOURNER LES RÉPONSES
À:**

Bid Receiving – PWGSC
Reception des soumissions TPSGC
11 Laurier St. / 11, rue Laurier
Place du Portage, Phase III
Core 0A1 / Noyau 0A1
Gatineau, Quebec
K1A 0S5

**REQUEST FOR RESPONSE
EVALUATION (RFRE)**

**DEMANDE DE RÉPONSE
POUR L'ÉVALUATION (DRPE)**

This requirement contains a security
requirement
Ce document contient une exigence
en matière de sécurité

Comments – Commentaires

**Respondent Name and Address
Raison sociale et adresse du
répondant**

Issuing Office - Bureau de distribution

AECL Restructuring Project Directorate
Direction du Project de restructuration
de l'AECL

Titre – Sujet Request for Response Evaluation for Atomic Energy of Canada Limited (AECL) GoCo Procurement Demande de réponse pour l'évaluation pour l'approvisionnement OGEE d'Énergie atomique du Canada limitée (AECL)	
Solicitation No. - No de l'invitation 23240-120758/F	Amendment No. - N° modif. N/A
Client Reference No. - N° de référence du client 23240-120758	Date 2014-03-07
GETS Ref. No. - No de réf. de SEAG	
File No. - No de dossier 411zg.23240-120758	CCC No./N° CCC - FMS No/N° VME N/A
Solicitation Closes - L'invitation prend fin :	
at - à 14:00 On - le 2014-08-06	Heure avancée de l'Est (HAE) Eastern Daylight Time (EDT)
F.O.B - F.A.B. Plant-Usine : <input type="checkbox"/> Destination : <input type="checkbox"/> Other-Autre : <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Jay Lavigne	Buyer Id - Id de l'acheteur 411zg
Telephone No. - N° de téléphone 613-996-8261	FAX No. - N° de FAX N/A
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: Specified Herein Précisé dans les présentes	
Instructions : See Herein Instructions : Voir aux présentes	
Delivery Required - Livraison exigée See herein Voir aux présentes	Delivery Offered - Livraison proposée
Respondent / Firm Name and Address Raison sociale et adresse du fournisseur / de l'entrepreneur	
Telephone No. - N° de téléphone Facsimile No. - N° de télécopieur	
Name and title of person authorized to sign on behalf of Respondent (type or print) Nom et titre de la personne autorisée à signer au nom du répondant (taper ou écrire en caractères d'imprimerie)	
A duly authorized representative of the Respondent must sign the Respondent Acknowledgment of the Terms of the RFRE (the "Acknowledgment") found on page 5 and 6 Un représentant dûment autorisé du Répondant doit signer l'Attestation des conditions de la DRPE par le Répondant (l'« Attestation ») à la page 5 et 6.	

Solicitation No. - N° de l'invitation
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REQUEST FOR RESPONSE EVALUATION (RFRE)

FOR

SERVICES OF A CONTRACTOR TO MANAGE THE SITE OPERATING COMPANY THAT WILL BE RESPONSIBLE FOR THE MANAGEMENT AND OPERATION OF ATOMIC ENERGY OF CANADA LIMITED'S NUCLEAR LABORATORIES UNDER A GOVERNMENT-OWNED, CONTRACTOR-OPERATED MODEL

Solicitation No. - N° de l'invitation
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411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

TABLE OF CONTENTS

RESPONDENT ACKNOWLEDGMENT OF THE TERMS OF THE RFRE	5
PART 1 - GENERAL INFORMATION	7
1.1. NATIONAL SECURITY EXCEPTION TO EXCLUDE OBLIGATIONS UNDER INTERNATIONAL TRADE AGREEMENTS	7
1.2. NATIONAL SECURITY REQUIREMENTS	7
1.3. SECURITY CLEARANCE REQUIREMENTS	7
1.4. INTRODUCTION	7
1.5. TERMINOLOGY	8
1.6. BACKGROUND	12
1.7. OBJECTIVE	13
1.8. PROCUREMENT OVERVIEW	13
1.9. SUBCONTRACTING WITH AFFILIATES	18
1.10. TARGET-COST AGREEMENTS	19
1.11. PROCUREMENT SCHEDULE OVERVIEW	19
1.12. AECL BACKGROUND INFORMATION	20
1.13. FAIRNESS MONITOR	20
PART 2 - INSTRUCTIONS TO RESPONDENTS	21
2.1. RFRE RESPONSE INTAKE DATES	21
2.2. ENQUIRIES - RFRE PROCESS	21
2.3. ACCESS TO INFORMATION IN THE RFRE PROCESS	22
2.4. SITE VISIT(S)	23
2.5. PROCUREMENT BUSINESS NUMBER	23
2.6. SUBMISSION OF RFRE RESPONSES	23
2.7. REVISIONS TO A RESPONSE SUBMITTED PRIOR TO A RESPONSE INTAKE DATE	25
2.8. REVISION OF A RESPONSE AFTER THE FIRST OR SECOND RESPONSE INTAKE DATE	26
2.9. EXTENSION OF FINAL RESPONSE INTAKE DATE	26
2.10. RESTRICTIONS IMPOSED ON RESPONDENTS	26
2.11. LATE RESPONSES	26
2.12. DELAYED RESPONSES	27
2.13. CUSTOMS CLEARANCE	27
2.14. RIGHTS OF CANADA	27
2.15. REJECTION OF RESPONSE	28
2.16. RESPONSE COSTS	29
2.17. LIMITATION OF DAMAGES	30
2.18. DISCLOSURE AND TRANSPARENCY	30
2.19. LEGAL CAPACITY – RESPONDENT THAT IS A SINGLE ENTITY	31
2.20. ARRANGEMENTS – TEAM MEMBERS AND JOINT VENTURES	31
2.21. CONFLICT OF INTEREST - UNFAIR ADVANTAGE	32
2.22. ENTIRE REQUIREMENT	34
2.23. FURTHER INFORMATION	34
2.24. APPLICABLE LAWS	34
2.25. INTEGRITY PROVISIONS - RESPONSES AND CERTIFICATIONS	35
2.26. NON-DISCLOSURE AGREEMENT (NDA)	39
2.27. COMPLIANCE WITH ALL THE REQUIREMENTS OF THE RFRE	40

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

PART 3 - RESPONSE PREPARATION INSTRUCTIONS	41
3.1. RESPONSE PREPARATION INSTRUCTIONS	41
3.2. RESPONSE PACKAGE.....	42
3.3. ENTIRETY OF RESPONSE	42
3.4. SECTION I: RESPONDENT LEGAL STATUS.....	43
3.5. SECTION II: TECHNICAL RESPONSE	43
3.6. SECTION III: ADDITIONAL INFORMATION	43
3.7. SECTION IV: NATIONAL SECURITY REQUIREMENTS	43
PART 4 - EVALUATION PROCEDURES AND BASIS OF QUALIFICATION.....	44
4.1. EVALUATION PROCEDURES	44
4.2. TECHNICAL EVALUATION	45
4.3. REFERENCE CHECKS	45
4.4. BASIS OF QUALIFICATION	46
4.5. CONDUCT OF EVALUATION	46
4.6. NOTIFICATION OF EVALUATION RESULTS	47
4.7. DEBRIEFINGS	47
PART 5 - CERTIFICATIONS	48
5.1. OVERVIEW	48
5.2. INTEGRITY PROVISIONS – RESPONSES AND CERTIFICATIONS	48
5.3. CERTIFICATION	48
5.4. CERTIFICATION COMPLIANCE	48
PART 6 - SECURITY, FINANCIAL AND OTHER REQUIREMENTS	49
6.1. SECURITY	49
6.2. NATIONAL SECURITY REQUIREMENTS	50
6.3. FINANCIAL CAPABILITY.....	53

ANNEXES

Annex A -	Draft General Requirements
Annex B -	Anticipated End-State Contracting Model
Annex C -	Background on AECL
Annex D -	Contents of the Data Rooms
Annex E -	Requirements for Access to Data Rooms (GFI)
Annex F -	Mandatory Technical Criteria
Annex G -	Respondent Preparation Checklist
Annex H -	Non-Disclosure Agreement
Annex I -	AECL Site Visit Form
Annex J -	Terms of Engagement
Annex K -	Draft Technical Criteria for the Request for Proposal Bid Evaluation

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23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

RESPONDENT ACKNOWLEDGMENT OF THE TERMS OF THE RFRE

The undersigned is a duly authorized representative of the Respondent and has the authority to sign this Respondent Acknowledgment of the Terms of the RFRE (the "Acknowledgment") on behalf of such Respondent.

The Respondent hereby acknowledges receipt and review of the RFRE and acceptance of all of the terms and conditions contained therein, including, without limitation, all annexes attached thereto and agrees to comply with all of the terms and conditions set out in the RFRE.

If a Response is submitted by a Respondent comprised of a Respondent Team and/or Joint Venture, then the Response must be signed in handwriting by all Team Members and/or Joint Venture Participants, as applicable. Please refer to clause 3.1. (Response Preparation Instructions).

Respondent Representative:

Legal Name of Respondent Representative:	
Address and Contact Information:	
Name of Authorized Signatory:	
Title of Authorized Signatory:	
Signature of Authorized Signatory:	
Date:	

Respondent (if a single entity):

Legal Name of Respondent:	
Address and Contact Information:	
Name of Authorized Signatory:	
Title of Authorized Signatory:	
Signature of Authorized Signatory:	
Date:	

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Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg,23240-120758

CCC No. /N° CCC - FMS No./N° VME

Team Members and Joint Venture Participants:

The following Team Members and/or Joint Venture Participants represent that they collectively comprise the Respondent:

Legal Name of Team Member or Joint Venture Participant:	
Address and Contact Information:	
Name of Authorized Signatory:	
Title of Authorized Signatory:	
Signature of Authorized Signatory:	
Date:	

(Please add additional Team Member and Joint Venture Participant signature blocks as applicable)

Please select the Respondent's preferred language for communications with Canada during the procurement process, as described in detail in clause 1.8. (Procurement Overview):

English French

PART 1 - GENERAL INFORMATION

1.1. *National Security Exception to Exclude Obligations Under International Trade Agreements*

1.1.1. To protect its essential security interests, including ensuring compliance with its nuclear policies and its international nuclear non-proliferation treaties with other countries, Canada has invoked the National Security Exception for this procurement, which excluded this procurement from all of the obligations of the trade agreements to which Canada is a party.

1.2. *National Security Requirements*

1.2.1. There are National Security Requirements (as defined in clause 6.2.1.) associated with this Request for Response Evaluation (RFRE). For additional information, consult Part 6 (Security, Financial and Other Requirements).

1.3. *Security Clearance Requirements*

1.3.1. There are security clearance requirements associated with this RFRE. For additional information, consult Part 6 (Security, Financial and Other Requirements).

1.4. *Introduction*

1.4.1. This RFRE is divided into six parts, plus annexes, as follows:

Part 1 General Information provides a general description of the requirement.

Part 2 Instructions to Respondents provides the instructions, clauses and conditions applicable to the RFRE process.

Part 3 Response Preparation Instructions provides Respondents with instructions on how to prepare their Response.

Part 4 Evaluation Procedure and Basis of Qualification indicates how the evaluation will be conducted, the evaluation criteria that must be addressed in the Response and the basis of qualification.

Part 5 Certifications includes the certifications to be provided in a Response.

Part 6 Security, Financial and Other Requirements includes the specific requirements that must be addressed by Respondents as they relate to financial capability, security and national security.

ANNEXES

- Annex A - Draft General Requirements
- Annex B - Anticipated End-State Contracting Model
- Annex C - Background on AECL
- Annex D - Contents of the Data Rooms
- Annex E - Requirements for Access to Data Rooms (GFI)
- Annex F - Mandatory Technical Criteria
- Annex G - Respondent Preparation Checklist
- Annex H - Non-Disclosure Agreement
- Annex I - AECL Site Visit Form
- Annex J - Terms of Engagement
- Annex K - Draft Technical Evaluation Criteria for the Request for Proposal Bid

Evaluation

- 1.4.2. Capitalized terms that are used in this RFRE are defined in clause 1.5. (Terminology).

1.5. **Terminology**

- 1.5.1. Within this document, the use of “shall”, “must”, “will”, “required” and “Canada requires” indicates a mandatory requirement that will be addressed in the evaluation. To successfully pass the RFRE evaluation, the Responses must demonstrate compliance with any and all mandatory requirements.
- 1.5.2. The use of the phrase “is requested to” and “should” indicates that it is preferred, but not mandatory, that the Respondents comply with the instructions provided.
- 1.5.3. As used in this RFRE:
- (a) “AECL” means Atomic Energy of Canada Limited and any successor thereof.
 - (b) “Bid” refers to a submission of information and documentation in response to the RFP.
 - (c) “Bidder” refers to a Qualified Respondent who has satisfied the National Security Requirements and thereafter submits a Bid, but does not include any other parent, subsidiaries or affiliates of any of the Persons comprising the Qualified Respondent.
 - (d) “Contract” refers to the agreement that AECL is anticipated to enter into with the Preferred Bidder and the SOC at the end of the Contract
-

Finalization Stage of this procurement process, subject to and in accordance with the terms and conditions of the RFP. Pursuant to the terms of the Contract, the Contractor will acquire the shares of the SOC from AECL and will agree to cause the SOC to enter into the SOC Agreement with AECL in the form of the SOC Agreement that is attached to the Contract.

- (e) "Contract Finalization Stage" refers to the third stage of this procurement process, as described in clause 1.8.2.3.
- (f) "Contracting Authority" refers to Public Works and Government Services Canada.
- (g) "Contractor" refers to the Preferred Bidder's SPV that will enter into the Contract with AECL and the SOC at the end of the Contract Finalization Stage of this procurement process.
- (h) "Draft Contract" refers to the draft form of the Contract which will be attached as a schedule to the Draft RFP, and if any revisions thereto are issued from time to time, the reference is to the latest version thereof. The Draft Contract will include the draft form of the SOC Agreement as a schedule thereto.
- (i) "Draft RFP" refers to the draft form of the Request for Proposal that will be made available to Qualified Respondents during the RFRE Stage of this procurement process, and if any revisions thereto are issued from time to time, the reference is to the latest version thereof. The Draft Contract will be attached to the Draft RFP.
- (j) "Final Form of Contract" refers to the final form of the Contract that will be attached as a schedule to the RFP. The Final Form of Contract will include the final form of the SOC Agreement as a schedule thereto.
- (k) "Finalization Stage Security", if required pursuant to the terms of the RFP, refers to an irrevocable standby letter of credit in an amount and in the form specified in the RFP, which the Preferred Bidder will be required to deliver to the Contracting Authority to secure the performance of the Preferred Bidder's obligations during the Contract Finalization Stage of this procurement process.
- (l) "Guarantees" refers to the guarantees that the Guarantors will be required to provide, on a joint and several basis, in respect of the

Contractor's payment, indemnity and performance obligations under the Contract at the end of the Contract Finalization Stage of this procurement process.

- (m) "Guarantors" refers to those Persons who will be jointly and severally liable for the Contractor's performance, payment and indemnity obligations under the Contract, as evidenced by the Guarantees that will be required to be delivered at the time that the Preferred Bidder's Special Purpose Vehicle enters into the Contract and becomes the Contractor at the end of the Contract Finalization Stage of this procurement process.
- (n) "Joint Venture" refers, collectively, to the Joint Venture Participants that comprise the Respondent.
- (o) "Joint Venture Participant" refers to a Person that has entered into an arrangement with one or more other Persons, either contractually or by forming a new entity, to combine money, property, knowledge, expertise or other resources in a joint endeavour.
- (p) "Other Team Member" refers to a member of the Respondent's team that is not a Prime Team Member but, if the Respondent is selected as the Preferred Bidder to form the Contractor, will otherwise have a significant role in the delivery of the services or performance of the obligations of the Contractor under the Contract or of the SOC under the SOC Agreement (e.g., an affiliate of a Prime Team Member or any other third party that will provide services as a key subcontractor).
- (q) "Person" refers to any individual, corporation, partnership, firm, joint venture, syndicate, association, trust, governmental authority or other form of legal entity.
- (r) "Preferred Bidder" refers to the Bidder that is selected by the Contracting Authority at the end of the RFP Stage of this procurement process to cause its Prime Team Members to incorporate a special purpose vehicle (Preferred Bidder's SPV) that will enter into the Contract at the end of the Contract Finalization Stage of this procurement process. For clarity, if such Bidder is a special purpose vehicle that was incorporated under the laws of Canada or a province or territory thereof by the Prime Team Members in connection with the submission of a Bid, then that corporation will be deemed to be the Preferred Bidder's SPV.

- (s) “Preferred Bidder’s Special Purpose Vehicle” or “Preferred Bidder’s SPV” refers to a corporation (which will become the Contractor) incorporated under the laws of Canada or a province or territory thereof by the Prime Team Members of the Preferred Bidder.
- (t) “Prime Team Member” refers to the Respondent (if it is a single entity) or to each of the Team Members or Joint Venture Participants comprising a Respondent that, if the Respondent is ultimately selected as the Preferred Bidder, will become a shareholder of the Preferred Bidder’s SPV during the Contract Finalization Stage of this procurement process.
- (u) “Qualified Respondent” refers to any Respondent whose Response is declared responsive pursuant to clause 4.4.
- (v) “Respondent” refers to the single entity, Respondent Team and/or Joint Venture that submits a Response during the RFRE Stage of this procurement process.
- (w) “Respondent Representative” refers to the individual who has been authorized by the Respondent to represent and bind the Respondent, including all Team Members and Joint Venture Participants comprising the Respondent.
- (x) “Respondent Team” refers to, collectively, the Prime Team Members and Other Team Members that comprise the Respondent.
- (y) “Response” refers to a submission of information and documentation in response to the requirements of this RFRE.
- (z) “Response Intake Dates” refers to, collectively, the First Response Intake Date, the Second Response Intake Date and the Final Response Intake Date and includes the time specified on each such date and “Response Intake Date” means any one of such dates.
- (aa) “RFP” refers to the Request for Proposal that the Contracting Authority anticipates issuing during the RFP Stage of this procurement process, which will include the Final Form of Contract as an attachment thereto. The final form of the SOC Agreement will be attached to the Final Form of Contract.
- (bb) “SOC” refers to the site operating company that will manage and operate AECL’s Nuclear Laboratories. It is anticipated that the SOC will be

incorporated by AECL prior to the end of the Contract Finalization Stage of this procurement process.

- (cc) “SOC Agreement” refers, collectively, to the agreements that AECL is anticipated to enter into with the SOC immediately following the execution of the Contract and the transfer of the shares of the SOC from AECL to the Contractor at the end of the Contract Finalization Stage of this procurement process. In addition to entering into an agreement relating to the management and operation of AECL's Nuclear Laboratories, AECL may enter into one or more additional separate target-cost agreements with SOC relating to the DWM work that will be undertaken for the Whiteshell and Nuclear Power Demonstration projects. Additional details will be provided in the Draft RFP.
- (dd) “Team Member” refers to each Person that is a member of a Respondent Team.

1.6. **Background**

1.6.1. On February 28, 2013, the Minister of Natural Resources announced that Canada would undertake a competitive procurement for a Contractor to manage the operations of AECL’s Nuclear Laboratories using a Government-owned, Contractor-operated (GoCo) model. Similar models are used in the management of nuclear operations in other jurisdictions, such as the United States and the United Kingdom. Going forward, the Nuclear Laboratories will focus on three key areas: (i) managing radioactive waste and decommissioning responsibilities; (ii) performing science and technology (S&T) activities to meet core federal responsibilities; and (iii) supporting Canada’s nuclear industry through access to S&T facilities and expertise on a commercial basis. For more information on the General Requirements for this procurement refer to Annex A (Draft General Requirements) attached to this RFRE.

1.6.2. The purpose of this RFRE is to initiate a procurement process to obtain the services of a Contractor to manage a SOC that will be responsible for managing and operating AECL’s Nuclear Laboratories. It is anticipated that AECL will incorporate a SOC prior to the end of the Contract Finalization Stage of this procurement process, as described below. The SOC will perform most of the functions and operations that AECL currently performs, and it will become the employer of the majority of the employees of AECL. It is anticipated that the SOC will hold all necessary licences, permits and other regulatory approvals required to operate AECL’s properties and assets, which properties and assets the SOC will have the right to use.

1.7. **Objective**

1.7.1. The objective of this procurement is to procure the services of a Contractor that will significantly transform AECL's Nuclear Laboratories to ensure that the SOC leverages the capabilities and resources to successfully: deliver nuclear S&T-related products and services to government and third-party customers, and fulfill decommissioning and waste management needs, while containing and reducing costs and financial risks for Canadian taxpayers over time.

1.7.2. The objective is expected to be met through (i) ensuring that nuclear safety is not compromised, (ii) efficient decommissioning and waste management; (iii) new revenue generation; (iv) solving complex technical, financial and regulatory issues; (v) use of best practices and innovative approaches that will enable productivity and efficiency improvements, and (vi) ensuring that the Nuclear Laboratories sustain a healthy nuclear safety culture and are safely and securely managed, and that capabilities, resources and infrastructure required to satisfy AECL's mandate are maintained.

1.8. **Procurement Overview**

1.8.1. This RFRE invites suppliers to submit Responses indicating their interest in becoming qualified during Stage 1: RFRE Stage and thereafter to participate in the anticipated Stage 2: RFP Stage and, if selected to do so, upon completion of such stage, to participate in the anticipated Stage 3: Contract Finalization Stage. Please refer to Annex B (Anticipated End-State Contracting Model) attached to this RFRE for a diagram representation of the GoCo model and a high-level overview of the roles and responsibilities of AECL, the SOC and the Contractor under the GoCo model.

1.8.2. The overall procurement for this requirement will be conducted in one continuous process consisting of three separate and sequential stages:

1.8.2.1. **Stage 1: RFRE Stage**

- (a) Suppliers will submit a Response that will be evaluated to confirm that the Mandatory Technical Criteria (Annex F to this RFRE), financial capability requirements and certifications are met. During the RFRE Stage, Canada will identify the Respondents that satisfy the requirements of the RFRE (aside from the National Security Requirements described below) and those Respondents will be deemed Qualified Respondents. Please refer to clause 4.4.1. for a detailed description of the basis for qualification. Canada will commence the National Security Requirements review described in clause 6.2.7 (National Security Requirements) of this RFRE upon a Respondent satisfying the Mandatory Technical Criteria (Annex F to this RFRE). Only Qualified Respondents that meet the

National Security Requirements will be eligible to participate in Stage 2: RFP Stage.

- (b) Suppliers will have the opportunity to submit a Response to the RFRE on or before any of the three Response Intake Dates to attempt to become a Qualified Respondent. The response process is described in Part 2 (Instructions to Respondents), herein.
- (c) Industry Engagement on the Draft RFP and Draft Contract
 - i. The RFRE Stage will include detailed consultations with Qualified Respondents. Detailed consultations will consist of industry meetings and any other processes deemed necessary by the Contracting Authority, including group discussions, site visits, and one-on-one discussions between Canada and each Qualified Respondent. The detailed requirements and terms of the Draft RFP, including the Draft Contract and the draft statements of work for the Contractor and SOC (the "Statements of Work"), will be made available to Qualified Respondents through the detailed consultations. For information on the draft technical criteria for the RFP Bid Evaluation, refer to Annex K attached to this RFRE. All Qualified Respondents who participate in the detailed consultations will receive the same Draft RFP, Draft Contract and the draft Statements of Work.
 - ii. Qualified Respondents will be required to sign the Non-Disclosure Agreement, attached as Annex H to this RFRE and satisfy the security requirements described in clause 6.1. of this RFRE, before being provided with the opportunity to participate in the detailed consultations.
 - iii. The detailed consultations are not intended to be a forum for negotiating any provisions of the Draft RFP, the Draft Contract or the draft Statements of Work, but rather one in which Qualified Respondents can provide feedback to Canada on its development of the final RFP, Contract and Statements of Work.
 - iv. Feedback provided during any group discussions, one-on-one discussions between Canada and a Qualified Respondent or through written comments may be analyzed for further consideration by Canada and may be incorporated, in whole or in part, into

subsequent procurement documents that Canada issues as part of this procurement process (e.g., the RFP) and/or the Contract.

v. Respondents who become Qualified Respondents after the Second Response Intake Date or the Final Response Intake Date will be allowed to provide feedback on topics previously covered in the detailed consultations but will not be granted additional time for detailed consultations.

vi. All documents and information provided to Qualified Respondents, who have qualified after the First Response Intake Date, will also be provided to Qualified Respondents who qualified after the Second Response Intake Date or the Final Response Intake Date.

vii. *One-On-One* Discussions

In-person one-on-one discussions will be held in Ottawa. Topics are likely to include but are not limited to feedback on the procurement process, the Draft RFP, Draft Contract and draft Statements of Work.

viii. *Group* Discussions

It is anticipated that in-person group discussions will be held in Ottawa. Topics are likely to include but are not limited to: contractual arrangements; duration of contract(s); payment mechanism; subcontracting; liability and indemnification; intellectual property; and human resource matters.

ix. *Site* Visits

It is anticipated that site visits to the Chalk River Laboratories and the Whiteshell Laboratories will be organized.

x. *Information Sessions with the Canadian Nuclear Safety Commission*

The Canadian Nuclear Safety Commission (CNSC) is the sole authority for regulating the use of all nuclear energy and materials in Canada. Given that Respondents may have responsibilities under future CNSC licences and could be required to participate in the CNSC licensing process, the CNSC is offering to meet with the Respondents on an individual basis or as a group to help them understand the way in which nuclear energy is regulated in Canada.

- (d) Details on the Terms of Engagement can be found in Annex J (Terms of Engagement) attached to this RFRE.
- (e) Engagement on Canada's Nuclear Innovation Agenda

In parallel, and separate from this procurement process, Canada is also exploring the viability of a nuclear innovation agenda, which will include discussions with various industry and academic stakeholders. To that effect, Canada anticipates inviting Qualified Respondents to engage with Canada to receive input and feedback on possible federal investment in a nuclear innovation agenda. Canada may, in lieu, invite all Respondents to the First Intake Date of the RFRE to engage on this policy matter. This engagement is anticipated to take place in April or May 2014. Any nuclear innovation agenda would not be managed by the Contractor, but could provide additional business opportunities for the SOC. Any information received through this engagement on the nuclear innovation agenda will be used to inform Canada's considerations regarding possible federal investment in a proposed nuclear innovation agenda and will not affect or modify the requirements for Qualified Respondents.

1.8.2.2. **Anticipated Stage 2: RFP Stage**

The RFP Stage will commence once all of the National Security Requirements assessments have been completed and when the final RFP is issued to Qualified Respondents that have satisfied the National Security Requirements. In the RFP Stage, Bids will be solicited from such Qualified Respondents. Each Bid will be irrevocable and will remain open for acceptance for a period of time that will be specified in the RFP. Bids will be evaluated against mandatory and point rated technical criteria and financial criteria and other requirements. It is anticipated that the RFP Stage will end with the selection of a Preferred Bidder.

1.8.2.3. **Anticipated Stage 3: Contract Finalization Stage**

- (a) The Contract Finalization Stage will commence when the Preferred Bidder has been selected and confirmed in writing by the Contracting Authority. It will be a condition of the RFP that, by submitting a Bid in accordance with the RFP, the Bidder is deemed to confirm its understanding and agreement that, if the Bidder is selected as the Preferred Bidder, then within a period of time that will be specified in the RFP: (i) the Preferred Bidder will deliver to Canada the Finalization Stage Security, and (ii) the Preferred Bidder will sign a Preferred Bidder Agreement substantially in the form attached to the RFP.

- (b) The Finalization Stage Security will be comprised of an irrevocable standby letter of credit in an amount and in the form specified in the RFP, to secure the performance of the Preferred Bidder's obligations during the Contract Finalization Stage of this procurement process.
- (c) Pursuant to the Preferred Bidder Agreement, the Preferred Bidder will agree:
 - i. to cause its Prime Team Members to incorporate the Preferred Bidder's SPV in accordance with the shareholdings described in the Bid (if the Prime Team Members have not already done so in connection with the submission of the Bid);
 - ii. to cause the Preferred Bidder's SPV to execute the Final Form of Contract, subject only to revision in respect of:
 - a. minor clerical and administrative changes, additions and modifications determined by AECL to be necessary to create a legally complete and binding agreement;
 - b. changes, additions and modifications to those provisions of the Final Form of Contract which require the insertion or addition of information relating to the Preferred Bidder's structure (e.g., identity of Persons comprising the Prime Team Members, Other Team Members, such as key subcontractors identified in the Response and the Bid, and the Guarantors) and the substance of its Bid; and
 - c. if applicable, changes, additions and modifications to those parts of the Final Form of Contract which are indicated as being subject to completion or finalization; and
 - iii. to deliver the Guarantees and any other required deliverables (e.g., copies of organizational documents and legal opinions) at the time of execution of the Contract.
- (d) Each of the changes, additions and modifications to the Final Form of Contract as described above must be consistent with the principles set out in the Final Form of Contract and otherwise acceptable to the Contracting Authority (acting reasonably). As part of the Preferred Bidder Agreement, the Preferred Bidder will be required to confirm and agree that, except to the extent contemplated above, no further changes,

additions or modifications to the Final Form of Contract (including the SOC Agreement attached thereto) will be requested or required by the Preferred Bidder prior to the execution thereof except as the Contracting Authority may otherwise agree. For the avoidance of doubt, the Preferred Bidder will not have any right to require negotiation of any provision contained in the Final Form of Contract or the SOC Agreement prior to the execution thereof.

- (e) Subject to the terms and conditions of the RFP, it is anticipated that the Contracting Authority will be entitled to draw on the Finalization Stage Security and retain and apply the proceeds thereof as liquidated damages if the Preferred Bidder does not satisfy the foregoing obligations within the time periods that will be specified in the RFP and the Preferred Bidder Agreement.
- (f) PWGSC is the Contracting Authority for this procurement process. It is anticipated that following selection of the Preferred Bidder and satisfaction of the conditions contained in the Preferred Bidder Agreement, AECL and the SOC will sign the Contract with the Preferred Bidder's SPV.

1.8.3. The Respondent acknowledges and agrees that this RFRE is in no way whatsoever an offer to enter into the Contract. The submission of a Response by any Respondent does not in any way whatsoever bind Canada. Canada may choose not to proceed with the RFP Stage.

1.9. ***Subcontracting with Affiliates***

It is currently anticipated that the SOC will be permitted to subcontract obligations under the SOC Agreement to other Persons (including affiliates of the SOC and the Contractor), subject to certain standards and conditions relating thereto that may be specified in the SOC Agreement in order to address actual or potential conflicts of interest, with the intention of ensuring that all subcontracts appropriately reflect Canada's economic interests. For example, it is anticipated that such standards and conditions will include a requirement that the SOC develop and maintain formalized procurement policies, practices and procedures that will result in fair, open and competitive procurement processes. In addition, in connection with any proposed subcontract with an affiliate or that is a sole source, in either case involving payments above a specified monetary threshold, the terms of such subcontract will be subject to AECL's prior consent. All procurements may be subject to varying levels of oversight by AECL from time to time.

1.10. Target-Cost Agreements

This procurement process will lead to the selection of a single contractor to satisfy all requirements. However, note that more than one agreement may be needed to cover all requirements. For example, Canada may enter into separate target-cost agreements with the SOC for the Whiteshell and Nuclear Power Demonstration projects, as the timelines and basis of payment may be different from the main Contract.

1.11. Procurement Schedule Overview**1.11.1. The RFRE Stage**

Stage 1: The RFRE	Dates
RFRE release	7 March 2014
<i>First Response Intake Date*</i>	<i>7 April 2014 at 2:00 pm Eastern Daylight Time</i>
Release of Draft RFP components (including Draft Contract) to Qualified Respondents	Late April 2014
Access to information contained in the protected data room begins for Qualified Respondents**	Mid April 2014
Detailed consultations begin with Qualified Respondents	Mid May 2014
<i>Second Response Intake Date</i>	<i>23 May 2014 at 2:00 pm Eastern Daylight Time</i>
<i>Final Response Intake Date</i>	<i>6 August 2014 at 2:00 pm Eastern Daylight Time</i>

* Part 2, clause 2.1. describes the Response intake process.

** Please refer to clause 6.1 for the conditions to be satisfied prior to a Qualified Respondent accessing the information contained in the protected data room.

1.11.2. The Anticipated RFP and Contract Finalization Stages

Key activities and target dates are provided for preliminary planning purposes only, are subject to change and do not constitute or imply any commitment by Canada.

Anticipated Stage 2: The RFP	
RFP release	Fall 2014

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

RFP closing date	Winter 2015
Selection and Approval of Preferred Bidder	Spring 2015
Anticipated Stage 3: Contract Finalization	
Contract Finalization and Signature	Summer/Fall 2015

1.12. **AECL Background Information**

1.12.1. Respondents may wish to review the background information in Annex C (Background on AECL) to this RFRE, including volumetric data. The inclusion of this data in this RFRE does not represent a commitment by Canada regarding future requirements for service through the Contract or the SOC Agreement. It is provided purely for information purposes. Canada makes no representation or warranty as to the sufficiency, accuracy or completeness of the information contained in Annex C (Background on AECL) to this RFRE, and nothing contained therein is intended to relieve the Respondents from forming their own opinions and conclusions with respect to the matters that will be addressed in the RFP.

1.13. **Fairness Monitor**

1.13.1. PWGSC has engaged PPI Consulting Ltd. as a fairness monitor for this procurement. The fairness monitor will not be part of the evaluation team, but will, among other things, observe the evaluation of the Responses with respect to Canada's adherence to the evaluation process described in this RFRE. The fairness monitor has reviewed this RFRE and will review the written debriefings referred to in clause 4.7.1. and monitor the detailed consultations.

PART 2 - INSTRUCTIONS TO RESPONDENTS

2.1. *RFRE Response Intake Dates*

- 2.1.1. Respondents have multiple opportunities to submit a Response. These opportunities are called "Response Intake Dates".
- 2.1.2. The Response Intake Dates are as follows:
 - First Response Intake Date: April 7, 2014 by 2:00 p.m. EDT
 - Second Response Intake Date: May 23, 2014 by 2:00 p.m. EDT
 - Final Response Intake Date: August 6, 2014 by 2:00 p.m. EDT
- 2.1.3. As soon as possible after each of the Response Intake Dates, Responses will be evaluated and Respondents will be informed of the results in the manner described in Part 4 (Evaluation Procedures and Basis of Qualification). Qualified Respondents will then be able to participate in the detailed consultations, provided that they satisfy certain requirements specified in clause 2.3.2.
- 2.1.4. Respondents are encouraged to respond prior to the First Response Intake Date to ensure that they satisfy the requirements to participate in the detailed consultations. Respondents may however enter the RFRE process by responding to the RFRE on or before subsequent Response Intake Dates.
- 2.1.5. Respondents who fail to qualify as a Qualified Respondent are allowed to submit a new Response on or before the next applicable Response Intake Date.
- 2.1.6. Respondents will not be allowed to submit a new Response or any revisions to a Response after the Final Response Intake Date. Please refer to clause 2.7. (Revisions to a Response Submitted Prior to a Response Intake Date).
- 2.1.7. Canada reserves the right to add additional Response Intake Dates.

2.2. *Enquiries - RFRE Process*

- 2.2.1. To ensure the integrity of the RFRE process, enquiries regarding the RFRE process must be directed only to the Contracting Authority. Failure to comply with this requirement may result in the Response being declared non-responsive. To ensure consistency and quality of information provided to suppliers, Respondents and Qualified Respondents, replies to enquiries will be made available to all suppliers, Respondents and Qualified Respondents, without revealing the sources of the enquiries.
- 2.2.2. All enquiries must be submitted in writing to the Contracting Authority via email at: EACLLAB.AECLLAB@pwgsc-tpsgc.gc.ca.

- 2.2.3. Enquiries should be submitted at least nine (9) calendar days before the applicable Response Intake Date. Enquiries received after that time may not be answered in time for the applicable Response Intake Date.
- 2.2.4. Suppliers should reference as accurately as possible the numbered item of the RFRE to which the enquiry relates. Care should be taken by suppliers to explain each enquiry in sufficient detail in order to enable Canada to provide an accurate response. Technical enquiries that are of a “proprietary” nature must be clearly marked “proprietary” at each relevant item. Items identified as proprietary will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the questions or may request that the supplier do so, so that the proprietary nature of the question is eliminated, and the enquiry can be responded to and made available to all suppliers. Enquiries not submitted in a form that can be distributed to all suppliers may not be answered by Canada.
- 2.2.5. Suppliers are requested to notify the Contracting Authority of any conflicts or inconsistencies between documents comprising this RFRE.
- 2.2.6. While every effort has been made to identify sufficient details within this document to allow suppliers to decide whether to participate in this procurement process, it is recognized that each supplier will have its own areas of concern and decision-making requirements. If suppliers believe that any additional information is required in order for them to be able to make a determination regarding their Response, suppliers are invited to identify the specific additional information required to the Contracting Authority. Canada will endeavour to provide a response to all suppliers.
- 2.2.7. Enquiries concerning receipt of a Response by Canada may be addressed to the Bid Receiving Unit, Procurement Operational Support Division, telephone 819-956-3370.

2.3. Access to Information in the RFRE Process

- 2.3.1. During the first phase of the RFRE, prior to submitting a Response on or prior to a Response Intake Date, suppliers will only have access to unprotected/unclassified documents that were previously provided to suppliers during the Request for Information (RFI) stage through the use of a data room in an online data depository (virtual data room). Details for accessing this information are described in Annex E (Requirements for Access to Data Rooms (GFI)) attached to this RFRE.
- 2.3.2. Qualified Respondents that have signed a Non-Disclosure Agreement in the form attached as Annex H to this RFRE and have satisfied the security requirements described in clause 6.1. (Security) for accessing classified documents will be eligible to participate in the detailed consultations and have access to classified/protected

documents that will be provided through the use of a data room in an online data depository. Details for accessing this information are described in Annex E (Requirements for Access to Data Rooms (GFI)) attached to this RFRE.

2.4. Site Visit(s)

- 2.4.1. It is anticipated that during the detailed consultations with Qualified Respondents, Qualified Respondents will be provided escorted access to AECL Nuclear Laboratories' sites including Chalk River and Whiteshell Laboratories.

2.5. Procurement Business Number

- 2.5.1. The Respondent, and if the Respondent is not a single entity and is comprised of a Respondent Team and/or a Joint Venture, then each Team Member and/or Joint Venture Participant are required to have a Procurement Business Number (PBN). The foregoing may register for a PBN online at Supplier Registration Information (<https://srisupplier.contractsCanada.gc.ca>). For non-Internet registration, suppliers may contact the Info Line at 1-800-811-1148 to obtain the telephone number of the nearest Supplier Registration Agent.

2.6. Submission of RFRE Responses

- 2.6.1. A Response may be submitted by:
- (a) a single entity as the Respondent;
 - (b) a Respondent Team as the Respondent; and/or
 - (c) a Joint Venture as the Respondent.
- 2.6.2. If a Respondent Team or a Joint Venture is determined by Canada to be a Qualified Respondent in accordance with this RFRE, such determination applies only to the Respondent Team, as a team (not to individual Team Members), or the Joint Venture, as a joint venture (not to individual Joint Venture Participants).
- 2.6.3. For the purposes of this RFRE, the Team Members or Joint Venture Participants, as the case may be, are not required to create a legal entity in order to submit a Response as a Respondent Team or a Joint Venture.
- 2.6.4. Canada requires that each Response, at the Response Intake Date or upon request from the Contracting Authority, be signed by the Respondent Representative, Respondent and all Team Members and/or Joint Venture Participants, as applicable. This must be done by completing the "Acknowledgment" at Page 5 of this RFRE.
- 2.6.5. Canada will make available Notices of Proposed Procurement (NPP), the RFRE and replies to enquiries received by suppliers, Respondents or Qualified Respondents relating solely to the RFRE process for download through the Government Electronic Tendering Service (GETS) on the government website BUY and SELL Canada at

www.buyandsell.gc.ca. Canada is not responsible and will not assume any liabilities whatsoever for the information found on websites of third parties. In the event that an NPP or RFRE is amended, Canada will not send notifications. Canada will post all RFRE amendments using GETS. It is the sole responsibility of the Respondent to consult GETS for the most up-to date information. Canada will not be liable for any oversight on the Respondent's part nor for notification services offered by a third party. Please refer to clause 2.2.1. (Enquiries – RFRE Process).

- 2.6.6. It is the Respondent's responsibility to:
- (a) obtain clarification of the requirements contained in this RFRE, if necessary, before submitting a Response;
 - (b) prepare its Response in accordance with the instructions contained in this RFRE;
 - (c) submit a complete Response by no later than a Response Intake Date;
 - (d) send its Response only to PWGSC's Bid Receiving Unit specified on Page 1 of this RFRE. Responses transmitted by facsimile or electronic mail to PWGSC will not be accepted;
 - (e) ensure that the Respondent's name, return address, the solicitation number and Response Intake Date are clearly visible on the envelope or the parcel(s) containing the Response; and
 - (f) provide a comprehensible and sufficiently detailed Response, including all requested details that will permit a complete evaluation in accordance with the criteria set out in this RFRE.
- 2.6.7. It is the Respondent's responsibility to ensure that revisions made through any RFRE amendment issued by Canada in any of the alternate formats that Canada may use to do so are taken into account.
- 2.6.8. Response documents and supporting information may be submitted in either English or French.
- 2.6.9. Responses received on or before a Response Intake Date will become the property of Canada and will not be returned. All Responses will be treated as confidential, subject to the provisions of the *Access to Information Act* (R.S. 1985, c. A-1) and the *Privacy Act* (R.S., 1985, c. P-21).
- 2.6.10. Unless specified otherwise in this RFRE, Canada will evaluate only the documentation provided with a Respondent's Response. Canada will not evaluate
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information such as references to website addresses where additional information can be found, or technical manuals or brochures not submitted with the Response.

2.6.11. A Response cannot be assigned or transferred in whole or in part to any other Person.

2.6.12. Canada reserves the right to require all or any elements evaluated during the RFRE Stage evaluation to be evaluated again during the RFP Stage Bid evaluation. Canada also reserves the right to require a new financial capability assessment and any applicable certifications to be added or to be re-submitted during the RFP Stage.

2.7. Revisions to a Response Submitted Prior to a Response Intake Date

2.7.1. A Respondent may revise a Response that is submitted prior to a Response Intake Date at any time up until the applicable Response Intake Date for which the Response was submitted. The Respondent may revise its Response by letter or facsimile, provided the revision is received at the office designated for the receipt of Responses, on or before the applicable Response Intake Date. The letter or facsimile shall be on the letterhead of the Respondent or the Respondent Representative and bear a signature that identifies the Respondent or the Respondent Representative.

2.7.2. A revision to a Response must clearly identify the change(s) and the specific item(s) to which each change applies.

2.7.3. A letter or facsimile submitted to confirm an earlier revision must be clearly identified as a confirmation.

2.7.4. The only acceptable facsimile number for receiving Response revisions is 819-997-9776. Canada will not be responsible for any failure attributable to the transmission or receipt of the faxed Response revision including, but not limited to, the following:

- (a) receipt of garbled or incomplete revision;
- (b) availability or condition of the receiving facsimile equipment;
- (c) incompatibility between the sending and receiving equipment;
- (d) delay in transmission or receipt of the revision;
- (e) failure of the Respondent to properly identify the revision;
- (f) illegibility of the revision; or
- (g) security of Response data.

2.7.5. Failure to comply with any of the above provisions will result in the rejection of the non-responsive revision(s) only. The Response will be evaluated based on the original Response submitted and all responsive revision(s).

2.8. *Revision of a Response after the First or Second Response Intake Date*

- 2.8.1. A Respondent who wishes to make any change to its Response after the Response Intake Date for which its Response was submitted, including changes related to the identity of Persons comprising the Respondent in the case of a Respondent Team or a Joint Venture, may submit a new Response prior to any subsequent Response Intake Date. The new Response must be prepared in accordance with the instructions herein and submitted prior to a subsequent Response Intake Date. For clarity, Respondents will not be allowed to submit a new Response after the Final Response Intake Date.
- 2.8.2. The initial Response must be withdrawn by the Respondent who submitted it and the new Response must be accompanied by a written acknowledgement signed by all of the signatories to the initial Response indicating their agreement that the initial Response will be deemed withdrawn.
- 2.8.3. Respondents will not be allowed to submit any revision(s) to a Response after the Final Response Intake Date.

2.9. *Extension of Final Response Intake Date*

- 2.9.1. The Final Response Intake Date may be extended as necessary to ensure Canada has time to complete the National Security Requirements assessment for each Respondent who has submitted a Response on or prior to the First or Second Response Intake Dates. If a Respondent does not pass the National Security Requirements assessment, the Respondent will have the opportunity to submit a new Response on or prior to the Final Response Intake Date. Responses (including new Responses) received after the Final Response Intake Date will not be accepted for any reason whatsoever other than due to reasons that satisfy Section 2.12 (Delayed Responses).

2.10. *Restrictions Imposed on Respondents*

- 2.10.1. A Respondent, Team Member, Joint Venture Participant or Guarantor of one Respondent shall not be a Respondent, a Team Member, a Joint Venture Participant or a Guarantor or otherwise participate in more than one Response concurrently.

2.11. *Late Responses*

- 2.11.1. Responses submitted after a stipulated Response Intake Date will be considered for the next applicable Response Intake Date, unless they qualify as a delayed Response as described below. PWGSC will return Responses delivered after the stipulated Final Response Intake Date, unless they qualify as a delayed Response as described below.

2.12. **Delayed Responses**

2.12.1. A Response delivered to the specified Bid Receiving Unit after a Response Intake Date may be considered, provided the Respondent can prove the delay is due solely to a delay in delivery that can be attributed to the Canada Post Corporation (CPC) (or national equivalent of a foreign country). Purolator Inc. is not considered to be part of CPC for the purposes of delayed responses. The only pieces of evidence relating to a delay in the CPC system that are acceptable to PWGSC are:

- (a) a CPC cancellation date stamp; or
- (b) a CPC Priority Courier bill of lading; or
- (c) a CPC Xpresspost label,

that clearly indicates that the Response was mailed before the applicable Response Intake Date.

2.12.2. Misrouting, traffic volume, weather disturbances, labour disputes or any other causes for the late delivery of Responses are not acceptable reasons for the Response to be accepted by PWGSC.

2.12.3. Postage meter imprints, whether imprinted by the Respondent, the CPC or the postal authority outside Canada, are not acceptable as proof of timely mailing.

2.13. **Customs Clearance**

2.13.1. It is the responsibility of the Respondent to allow sufficient time to obtain customs clearance, where required, before a Response Intake Date. Delays related to the obtaining of customs clearance cannot be construed as "undue delay in the mail" and will not be accepted as a delayed response under the above clause 2.12.

2.14. **Rights of Canada**

2.14.1. Canada reserves the right to:

- (a) reject any or all Responses received in response to this RFRE;
- (b) cancel the RFRE at any time;
- (c) reissue the RFRE;
- (d) if no responsive Responses are received and the requirement is not substantially modified, reissue the RFRE by inviting only the Respondents who have responded to resubmit Responses within a period designated by Canada; and
- (e) amend the scope of the RFRE, modify, cancel or suspend the RFRE process or any or all stages of the procurement process, at any time for any reason.

2.14.2. Respondents are advised that Canada has yet to allocate funding for the subject matter of this RFRE and that it is a condition for execution of the Contract at the end of the Contract Finalization Stage, that funds be allocated by Canada.

2.14.3. This RFRE does not commit Canada in any way to identify Qualified Respondents or to proceed to an RFP Stage, to identify a Preferred Bidder, to proceed to a Contract Finalization Stage or to cause AECL to enter into the Contract. Canada reserves the complete right, exercisable in its sole and absolute discretion, to at any time reject all Responses and to terminate this procurement process and proceed with the requirements in some other manner as determined by Canada.

2.15. **Rejection of Response**

2.15.1. Canada may reject a Response where any one of the following circumstances is present:

- (a) the Respondent, or if the Respondent is not a single entity and is comprised of a Respondent Team and/or a Joint Venture, any Team Member or Joint Venture Participant comprising the Respondent, or a Guarantor, is subject to a Vendor Performance Corrective Measure, under the Vendor Performance Corrective Measure Policy, which would render the Respondent ineligible to submit a Bid in the subsequent RFP Stage;
- (b) an employee included as part of the Response, is subject to a Vendor Performance Corrective Measure, under the Vendor Performance Corrective Measure Policy, which would render that employee ineligible to submit a Bid in the subsequent RFP Stage;
- (c) the Respondent, or if the Respondent is not a single entity and is comprised of a Respondent Team and/or a Joint Venture, any Team Member or Joint Venture Participant comprising the Respondent, or a Guarantor, is bankrupt or where, for whatever reason, its activities are rendered inoperable for an extended period;
- (d) evidence, satisfactory to Canada, of fraud, bribery, fraudulent misrepresentation or failure to comply with any law protecting individuals against any manner of discrimination, has been received with respect to the Respondent, or if the Respondent is not a single entity and is comprised of a Respondent Team and/or a Joint Venture, any Team Member or Joint Venture Participant comprising the Respondent, or a Guarantor, or any of its or their employees who signed the Acknowledgment;

- (e) evidence satisfactory to Canada that, based on past conduct or behaviour, the Respondent, or if the Respondent is not a single entity and is comprised of a Respondent Team and/or a Joint Venture, any Team Member or Joint Venture Participant comprising the Respondent, or a Guarantor, or any of its or their employees who signed the Acknowledgment, has conducted itself improperly;
- (f) with respect to current or prior transactions with Canada:
 - i. Canada has exercised its contractual remedies of suspension or termination for default with respect to a contract with the Respondent, or if the Respondent is not a single entity and is comprised of a Respondent Team and/or a Joint Venture, any Team Member or Joint Venture Participant comprising the Respondent, or a Guarantor;
 - ii. Canada determines that the performance of the Respondent, or if the Respondent is not a single entity and is comprised of a Respondent Team and/or a Joint Venture, any Team Member or Joint Venture Participant comprising the Respondent, or a Guarantor, on other contracts, including the efficiency and quality as well as the extent to which the Respondent or such Team Member or Joint Venture Participant comprising the Respondent or Guarantor performed the applicable work in accordance with contractual clauses and conditions, is sufficiently poor to jeopardize the successful completion of the work that will be the subject matter of the Contract.

2.15.2. Where Canada intends to reject a Response pursuant to a provision of clause 2.15.1(a) to (e), the Contracting Authority will so inform the Respondent and provide the Respondent ten (10) days within which to make representations to Canada solely with respect to the subject matter thereof, before making a final decision on the Response rejection.

2.16. **Response Costs**

2.16.1. No payment will be made by Canada for costs incurred by any Respondent, or any person acting on behalf of the Respondent, in the preparation and submission of a Response to the RFRE solicitation nor will payment be made by Canada for Qualified Respondent costs related to participation in any detailed consultations that follow Canada's evaluation of Responses. Costs associated with preparing and submitting a Response, as well as any costs incurred by a Respondent associated with the

evaluation of the Response and subsequent detailed consultations with Canada, are the sole responsibility of the Respondent.

2.17. **Limitation of Damages**

2.17.1. Each Respondent by submitting a Response agrees that:

- (a) the Respondent will not have any claim for compensation of any kind whatsoever against Canada or any of its employees, advisors representatives or agents arising from or as a result of participating in this RFRE, and by submitting a Response the Respondent will be deemed to have agreed that it has no such claim at any time and to have released Canada and its employees, advisors, representatives and agents from all such claims arising at any time;
- (b) if any or all Responses are rejected or disqualified, or this procurement process or the subject matter of such process is modified, suspended or cancelled for any reason (including modification of the scope of the General Requirements or modification of the RFRE or both), neither Canada nor any of its employees, advisors, representatives or agents will be liable, under any circumstances, for any claim or to reimburse or compensate the Respondent in any manner whatsoever or to provide any other form of relief, including but not limited to costs of preparation of the Response, loss of anticipated profits, loss of opportunity or for any other matter; and
- (c) the Respondent irrevocably waives any and all claims of any nature whatsoever, including claims for loss of profits or loss of opportunity, if the Respondent is rejected or disqualified or is not successful in being qualified in the RFRE process or for any other reason.

2.18. **Disclosure and Transparency**

2.18.1. Canada is committed to an open and transparent procurement process, while understanding the Respondents' need for protection of confidential commercial information. To assist Canada in meeting its commitment, Respondents will co-operate and extend all reasonable accommodation to this endeavour.

2.18.2. Canada expects to disclose the following information during or after the RFRE Stage of the procurement process:

- (a) the number of Respondents; and
 - (b) the names of Qualified Respondents (including the names of Team Members and/or Joint Venture Participants) and/or Guarantors.
-

2.19. ***Legal Capacity – Respondent that is a Single Entity***

2.19.1. A Respondent that is a single entity must have the legal capacity to contract. If such Respondent is not an individual, the Respondent is requested to provide a statement and any requested supporting documentation indicating the laws under which it is registered or incorporated, such as an official incorporation certificate, together with the registered or corporate name and place of business. If the information is not clearly provided in the Response, the Respondent must provide further and complete information as requested by the Contracting Authority. The Respondent is requested to identify the name of its Respondent Representative and Guarantor(s).

2.20. ***Arrangements – Team Members and Joint Ventures***

2.20.1. If a Respondent is not a single entity, it must indicate that it is comprised of a Respondent Team or that it is a Joint Venture, as the case may be, and is requested to provide the following information:

- (a) the name and address of each Prime Team Member, Other Team Member and/or Joint Venture Participant, as the case may be, and all direct and indirect ownership interests in each of the foregoing (provided that if a direct or indirect owner is itself publicly owned, it is only necessary to identify those individuals or entities that own or control at least 20% of the outstanding voting shares);
- (b) a description of the proposed overall Respondent structure, including a description of the roles for each of the Team Members and/or Joint Venture Participants, the legal relationships within the Respondent (e.g., shareholdings, joint venture agreements, teaming agreements, proposed subcontractor relationships with Other Team Members);
- (c) an organizational chart showing at the corporate level, the organization of the Respondent;
- (d) the PBN of each Team Member and Joint Venture Participant;
- (e) in respect of each Team Member and/or Joint Venture Participant, all of the documents and information referred to in clause 2.19. of this RFRE that are required to be submitted by a Respondent that is a single entity;
- (f) the name of any Guarantor(s); and
- (g) the name of the Respondent Representative.

2.20.2. If the Respondent is not a single entity and is comprised of a Respondent Team and/or Joint Venture, then a Respondent Representative shall be appointed and shall be authorized by the Respondent, the Team Members and/or the Joint Venture Participants, as applicable, to provide documentation and information to the Contracting Authority and to receive instructions and notices for and on behalf of the Respondent or any and all Team Members and/or Joint Venture Participants, as applicable. The Contracting Authority may, at any time, require each Team Member or Joint Venture Participant to confirm that the Respondent Representative has been appointed with full authority to act as its representative for the purposes of the RFRE.

2.20.3. If any of the above information is not clearly provided in the Response, the Respondent must provide the information within the timeframe requested by the Contracting Authority.

2.21. ***Conflict of Interest - Unfair Advantage***

2.21.1. In clause 2.21., references to the Respondent are deemed to mean, and the provisions of clause 2.21. apply to and in respect of: (i) the Respondent (if the Respondent is a single entity); (ii) each Team Member and/or Joint Venture Participant (if the Respondent is comprised of a Respondent Team and/or Joint Venture); and (iii) each Guarantor. In order to protect the integrity of the procurement process, Respondents are advised that Canada, in its sole and absolute discretion, may reject a Response in the following circumstances:

- (a) if the Respondent or any of its employees or former employees was involved in any manner in the preparation of the RFRE solicitation or in any situation of conflict of interest or appearance of conflict of interest;

or

- (b) if the Respondent or, any of its employees or former employees had access to information related to the RFRE solicitation that was not available to other Respondents and that would, in Canada's opinion, give or appear to give the Respondent an unfair advantage.

2.21.2. The fact that a Respondent is providing or has previously provided goods and services of a similar nature to those described in the RFRE solicitation to AECL or Canada will not, in itself, be considered by Canada as conferring an unfair advantage or creating a conflict of interest. The Respondent however, remains subject to the criteria established above.

2.21.3. Where Canada intends to reject a Response under this clause, the Contracting Authority will inform the Respondent and provide the Respondent an opportunity to make representations before making a final decision. Respondents who are in doubt

about a particular situation should contact the Contracting Authority before the Final Response Intake Date describing in detail the relevant factors giving rise to the enquiry. By submitting a Response, the Respondent represents that it does not consider itself to be in conflict of interest nor to have an unfair advantage. The Respondent acknowledges that it is within Canada's sole and absolute discretion to determine whether a conflict of interest, unfair advantage or an appearance of conflict of interest or unfair advantage exists.

2.21.4. Either Canada or AECL has retained the services of the following private sector consultants and temporary agency personnel to assist in the preparation of this RFRE and/or the GoCo procurement process generally:

- IT/NET Ottawa Inc.
- KPMG LLP
- Davies Ward Phillips & Vineberg LLP
- Charles Seeto
- Lumina IT
- Ernst and Young LLP

2.21.5. Canada has retained the services of a Fairness Monitor for this procurement as follows: PPI Consulting Ltd.

2.21.6. The above private-sector consultants and temporary agency personnel (and their respective directors, officers, employees, partners, and affiliates (as that term is defined in the *Canada Business Corporations Act*)) are:

- (a) not eligible to participate as a Respondent, Qualified Respondent or Bidder or to assist, either directly or indirectly, any party to participate as Respondent, Qualified Respondent or Bidder on a competitive solicitation(s) for a Contractor to manage and operate the Nuclear Laboratories of AECL; and
- (b) prohibited from providing advice to any Respondent, Qualified Respondent or Bidder, directly or indirectly, with respect to the preparation of a Response to the RFRE or Bid submission under the RFP, including any preparation for the detailed consultations with Canada.

2.21.7. By submitting a Response to the RFRE the Respondent represents and warrants that the Response was prepared without any violation of this clause 2.21. The RFP will contain a similar representation and warranty relating to the submission of a Bid thereunder.

2.21.8. Any Response to the RFRE or Bid under the RFP that is in violation of any of the provisions of this clause 2.21. will be deemed to be in real or perceived conflict of

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg,23240-120758

CCC No. /N° CCC - FMS No./N° VME

interest and will be considered non-responsive with the provisions of this RFRE or the RFP, as applicable.

2.21.9. If a violation of the requirements of this clause 2.21. is discovered after a Respondent becomes a Qualified Respondent but before the selection of a Preferred Bidder, then the Qualified Respondent will not be eligible to continue to participate in the RFRE Stage or RFP Stage of this procurement process, as applicable.

2.21.10. If a violation of the requirements of this clause 2.21. is discovered after selection of a Preferred Bidder or execution of the Contract, the violation shall be grounds for termination of the Contract.

2.22. ***Entire Requirement***

2.22.1. The RFRE solicitation documents contain all the requirements relating to the RFRE. Any other information or documentation provided to or obtained by a Respondent from any source is not relevant to this RFRE. Respondents should not assume that practices used under previous contracts of Canada will continue, unless they are described in the RFRE solicitation. Respondents should also not assume that their existing capabilities satisfy the requirements of the RFRE simply because they have satisfied previous requirements of Canada in other procurement processes.

2.23. ***Further Information***

2.23.1. For further information, Respondents may contact the Contracting Authority.

2.24. ***Applicable Laws***

2.24.1. This RFRE must be interpreted and governed, and the relations between the parties determined, by the laws in force in Ontario.

2.25. ***Integrity Provisions - Responses and Certifications***

2.25.1. In clause 2.25., references to the Respondent are deemed to mean, and the provisions of clause 2.25. apply to and in respect of: (i) the Respondent (if the Respondent is a single entity); (ii) each Team Member and/or Joint Venture Participant (if the Respondent is comprised of a Respondent Team and/or Joint Venture); and (iii) each Guarantor. Respondents must comply with the [Code of Conduct for Procurement](http://www.tpsgc-pwgsc.gc.ca/app-acq/cndt-cndct/contexte-context-eng.html) (www.tpsgc-pwgsc.gc.ca/app-acq/cndt-cndct/contexte-context-eng.html). In addition to the [Code of Conduct for Procurement](http://www.tpsgc-pwgsc.gc.ca/app-acq/cndt-cndct/contexte-context-eng.html), Respondents must:

- (a) respond to the RFRE in an honest, fair and comprehensive manner;
- (b) accurately reflect their capacity to satisfy the requirements stipulated in the RFRE; and
- (c) submit a Response only if they will fulfill all obligations of the RFRE.

2.25.2. Respondents further understand that, to ensure fairness, openness and transparency in the procurement process, the commission of certain acts or offences will render them ineligible to be selected as the Preferred Bidder. Canada will declare non-responsive any Response in respect of which the information herein requested is missing or inaccurate, or in respect of which the information contained in the certifications specified hereinafter is found to be untrue, in any respect, by Canada. If it is determined, after qualification, that the Respondent made a false declaration, Canada will, following a notice period, have the right to terminate the qualification. The Respondent will be required to diligently maintain up-to-date the information herein requested. The Respondent and any of its affiliates will also be required to remain free and clear of any acts or convictions specified herein during the RFRE Stage of this procurement process.

2.25.3. For the purpose of this clause, everyone, including but not limited to organizations, bodies corporate, societies, companies, firms, partnerships, associations of persons, parent companies, and subsidiaries, whether partly or wholly-owned, as well as individuals, and directors, are affiliates of the Respondent if:

- (a) directly or indirectly either one controls or has the power to control the other; or
- (b) a third party has the power to control both.

Indicia of control, include, but are not limited to, interlocking management or ownership, identity of interests among family members, shared facilities and equipment, common use of employees, or a business entity created following

the acts or convictions specified in this clause which has the same or similar management, ownership, or principal employees, as the case may be.

2.25.4. A Respondent that is incorporated is requested to provide with their Response or promptly thereafter a complete list of names of all individuals who are currently directors thereof. If a Respondent that is a single entity is a sole proprietorship, the Respondent is requested to list the name of the owner of such sole proprietorship with his/her Response or promptly thereafter. If the required names have not been received with the Response submitted, Canada will inform the Respondent of a timeframe within which to provide the information. Failure to provide the requested information within the timeframe requested will result in the rejection of the Respondent's Response to this RFRE.

Canada may, at any time, request that a Respondent provide properly completed and Signed Consent Forms (Consent to a Criminal Record Verification form - PWGSC-TPSGC 229) for any or all individuals aforementioned within the time specified. Failure to provide such Consent Forms and associated information within the time period provided, or failure to cooperate with the verification process, will result in the Response being declared non-responsive.

2.25.5. The Respondent must diligently maintain an up-to-date list of names by informing Canada in writing of any change occurring during the RFRE Stage of this procurement as well as during the period of and subsequent stage of this procurement process. The Respondent must also, when so requested, provide Canada with properly completed and signed Consent Forms.

2.25.6. By submitting a Response, the Respondent certifies that it is aware, and that its affiliates are aware, that Canada may request additional information, certifications, consent forms and other evidentiary elements proving identity or eligibility. Canada may also verify the information provided by the Respondent, including the information relating to the acts or convictions specified herein, through independent research, use of any government resources or by contacting third parties.

2.25.7. By submitting a Response, the Respondent certifies that neither the Respondent nor any of the Respondent's affiliates have directly or indirectly, paid or agreed to pay, and will not, directly or indirectly, pay a contingency fee to any individual for the solicitation, negotiation or obtaining of the Contract if the payment of the fee would require the individual to file a return under Section 5 of the [Lobbying Act](#).

2.25.8. By submitting a Response, the Respondent certifies that neither the Respondent nor any of the Respondent's affiliates has been convicted of an offence or has received a conditional or an absolute discharge under any of the provisions enumerated below or where a Respondent or an affiliate of the Respondent has been convicted of an offence or has received a conditional or an absolute discharge under any of the provisions enumerated below, the time period (as defined in clause 2.25.11.) has elapsed and, in addition, only in the case of a conviction under any of the provisions under clause 2.25.8(a) or (b), a criminal pardon or a record suspension has been obtained or capacities have been restored by the Governor in Council:

- (a) paragraph 80(1)(d) (*False entry, certificate or return*), subsection 80(2) (*Fraud against Her Majesty*) or section 154.01 (*Fraud against Her Majesty*) of the [Financial Administration Act](#), or
- (b) section 121 (*Frauds on the government and Contractor subscribing to election fund*), section 124 (*Selling or Purchasing Office*), section 380 (*Fraud*) for fraud committed against Her Majesty or section 418 (*Selling defective stores to Her Majesty*) of the [Criminal Code](#) of Canada, or
- (c) section 119 (*Bribery of judicial officers, etc.*), section 120 (*Bribery of officers*), section 346 (*Extortion*), sections 366 to 368 (*Forgery and other offences resembling forgery*), section 382 (*Fraudulent manipulation of stock exchange transactions*), section 382.1 (*Prohibited insider trading*), section 397 (*Falsification of books and documents*), section 422 (*Criminal breach of contract*), section 426 (*Secret commissions*), section 462.31 (*Laundering proceeds of crime*) or sections 467.11 to 467.13 (*Participation in activities of criminal organization*) of the [Criminal Code](#) of Canada, or
- (d) section 45 (*Conspiracies, agreements or arrangements between competitors*), 46 (*Foreign directives*) 47 (*Bid rigging*), 49 (*Agreements or arrangements of federal financial institutions*), 52 (*False or misleading representation*), 53 (*Deceptive notice of winning a prize*) under the [Competition Act](#), or
- (e) section 239 (*False or deceptive statements*) of the [Income Tax Act](#), or
- (f) section 327 (*False or deceptive statements*) of the [Excise Tax Act](#), or
- (g) section 3 (*Bribing a foreign public official*), section 4 (*Accounting*) or section 5 (*Offence Committed Outside Canada*) of the [Corruption of Foreign Public Officials Act](#), or

(h) section 5 (*Trafficking in substance*), section 6 (*Importing and exporting*), or section 7 (*Production of substance*) of the [Controlled Drugs and Substances Act](#).

2.25.9. By submitting a Response, the Respondent further certifies that no one convicted under any of the provisions under clause 2.25.8(a) or (b) is to receive any benefit under this RFRE, unless the time period has elapsed and, in addition, a criminal pardon or a record suspension has been obtained, or capacities have been restored by the Governor in Council.

2.25.10. In connection with the requirement in clauses 2.25.8 and 2.25.9 to obtain a criminal pardon, a record suspension or restoration of capacities by the Governor in Council in circumstances where there has been a conviction under any of the provisions under clause 2.25.8(a) or (b) and the time period has elapsed, the Respondent must provide with its Response or promptly thereafter a copy of confirming documentation from an official source for its certification to be found true by Canada for the purposes of this clause 2.25. If such documentation has not been received by the time the evaluation of Responses is completed, Canada will inform the Respondent of a timeframe within which to provide the information. Failure to comply within the timeframe specified will render the Response non-responsive.

2.25.11. For purposes of this clause 2.25., "time period" means 10 years from the date the Respondent or an affiliate of the Respondent was convicted or received a conditional or absolute discharge, as the case may be.

2.25.12. By submitting a Response, the Respondent further certifies that, within the 10 years before the date it submits its Response, neither the Respondent nor any of the Respondent's affiliates has been convicted of an offence or has received a conditional or an absolute discharge under any foreign offence that Canada deems to be of similar constitutive elements to the offences enumerated in clause 2.25.8. Canada will also consider foreign measures declared by Canada to be similar in nature to the Canadian criminal pardon, record suspension, or restoration of capacities by the Governor in Council.

2.25.13. The Contractor will be required to ensure that subcontracts include integrity provisions no less favourable to Canada than those imposed in the Contract.

2.25.14. In circumstances where the Respondent and/or an affiliate of the Respondent has been convicted of an offence or has received a conditional or an absolute discharge in respect of any of the offences enumerated in clause 2.25.8 and the time period in respect thereof has elapsed, by submitting a Response, the Respondent certifies that the Respondent and/or an affiliate of the Respondent has diligently put

in place measures to prevent the recurrence of such convictions and/or reprehensible actions.

2.25.15. If Canada determines, in its sole discretion, that all of the Responses submitted are non-responsive as a result of the enumerated offences listed in clause 2.25.8, then Canada may invoke the public interest exception described below and consider such Responses, but only Responses containing a declaration describing the relevant conviction or act. Canada may elect to procure outside of this procurement process. The Respondent understands that Canada may enter into the Contract with the Preferred Bidder's SPV of a where the Respondent or an affiliate of the Respondent has been convicted of an offense enumerated in clause 2.25.8., when required to do so by law or legal proceedings, or when Canada, in its sole discretion, considers it necessary to the public interest for reasons which include, but are not limited to:

- (a) no one person is capable of performing the contract;
- (b) emergency;
- (c) national security;
- (d) health and safety; and
- (e) economic harm.

2.25.16. Canada reserves the right to impose additional conditions, measures or requirements to ensure the integrity of the procurement process.

2.25.17. Notwithstanding anything else to the contrary in this clause 2.25., governments, as well as entities controlled by a government, including Crown corporations, are only required to comply with section 750 of the Criminal Code, the Government Contract Regulations and the Code of Conduct for Procurement.

2.25.18. Each Bidder, the Preferred Bidder and the Contractor, including, in each case, if applicable, the Team Members and/or Joint Venture Participants, and each Guarantor will be required to comply with the integrity provisions described in the RFP and the Contract.

2.26. ***Non-Disclosure Agreement (NDA)***

2.26.1. The Respondent, or if the Respondent is not a single entity but is instead comprised of a Respondent Team and/or a Joint Venture, then each Team Member and/or Joint Venture Participant comprising the Respondent, will, in connection with the submission of a Response, be required to execute and submit the NDA attached as Annex H to this RFRE.

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg,23240-120758

CCC No. /N° CCC - FMS No./N° VME

2.27. *Compliance with all the Requirements of the RFRE*

2.27.1. Qualified Respondents are required to comply with all of the requirements of this RFRE, including, for clarity, the National Security Requirements described in clause 6.2., throughout the procurement process. Failure to comply with any requirement during the procurement process may result in a Qualified Respondent ceasing to be eligible to continue to participate in the RFRE Stage of the procurement process or any of the subsequent stages of the procurement process.

PART 3 - RESPONSE PREPARATION INSTRUCTIONS

3.1. *Response Preparation Instructions*

3.1.1. Canada requests that Respondents provide their Response in separately bound sections as follows:

Section Number	Title of Section	Number of Copies	
		Paper Copies	Soft Copy in Searchable PDF Format, on CD or Memory Stick
Section I	Respondent Legal Status	5	1
Section II	Technical Response	10	1
Section III	Additional Information	3	1
Section IV	National Security Requirements	10	1

If there is a discrepancy between the wording of the soft copy and the hard copy, the wording of the hard copy will have priority over the wording of the soft copy.

3.1.2. The Respondent should indicate one hard copy as its “original” and, such “original” must be signed in handwriting by a Respondent (if it is a single entity) or by all Team Members and/or Joint Venture Participants (if the Respondent is comprised of a Respondent Team and/or Joint Venture) and by the Respondent Representative. If there is a discrepancy between the wordings of any copies, the wording of the indicated “original” copy will prevail. If the Acknowledgment is missing one or more signatures, the Respondent will provide such missing signature(s) within the timeframe requested by the Contracting Authority.

3.1.3. Canada requests that Respondents follow the format instructions described below in the preparation of their Response:

- (a) use 8.5 x 11 inch (216 mm x 279 mm) paper;
- (b) use Times New Roman with font no smaller than 12 point;
- (c) use a numbering system that corresponds to the solicitation process;
- (d) include a title page at the front of each copy of the Response that includes the title, date, solicitation process number, name, address and contact information of the Respondent; and

- (e) include a table of contents.

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

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

3.1.4. Respondents are required to follow the format instructions described below in the preparation of their Response:

- (a) the total page count limitation for the Respondent's technical response to the Mandatory Technical Criteria (Annex F to this RFRE) is 50 pages. All pages should be numbered sequentially and all pages after 50 will not be considered as part of the technical response to the Mandatory Technical Criteria (Annex F to this RFRE). If the pages are not numbered sequentially, a member of the evaluation team will count the pages to determine the total number. The excess pages will be removed and not considered by evaluators. Please refer to clause 3.2.1. (Response Package).

3.2. Response Package

3.2.1. Respondents are to ensure the structured Response package is provided as described above. Only referenced material included within the Respondent's Response will be evaluated. Reference material outside of the Respondent's Response will not be considered. It is the sole responsibility of Respondents to provide sufficient information so that their Responses can be adequately evaluated.

3.3. Entirety of Response

3.3.1. Respondents must meet the requirements set out in the RFRE in their entirety. Partial compliance will not be accepted.

3.4. Section I: Respondent Legal Status

3.4.1. The Respondent will provide information and documentation required under clause 2.19. (Legal Capacity – Respondent that is a Single Entity), clause 2.20., (Arrangements – Team Members and Joint Ventures), as applicable. The Acknowledgment must also be included in Section I.

3.5. Section II: Technical Response

3.5.1. The Respondent is requested to provide the information specified in Annex F (Mandatory Technical Criteria) to this RFRE to demonstrate their experience.

3.6. Section III: Additional Information

3.6.1. The Respondent is requested to provide information and documents required to assess financial capability as referenced in Part 6 clauses 6.3.5. (Financial Capability) and 6.3.6.

3.6.2. The Respondent is requested to include the signed Non-Disclosure Agreement attached as Annex H to this RFRE.

3.6.3. The Respondent is requested to provide a list of directors as described in Part 2, clause 2.25. (Integrity Provisions - Responses and Certifications).

3.6.4. Respondents are requested to identify which of Canada's two official languages should be used for future communications from Canada and, if successful in the RFRE evaluation, for the remainder of the RFRE Stage, the RFP Stage and the Contract Finalization Stage of this procurement process.

3.7. Section IV: National Security Requirements

3.7.1. Each Respondent is requested to provide the detailed information specified in Part 6, clause 6.2. (National Security Requirements).

PART 4 - EVALUATION PROCEDURES AND BASIS OF QUALIFICATION

4.1. *Evaluation Procedures*

- 4.1.1. These evaluation procedures and basis of qualification will be applied to Responses received on or before each Response Intake Date.
- 4.1.2. Responses will be assessed in accordance with the entire requirement of the RFRE process including the technical evaluation criteria and financial capability requirements. There are multiple steps in the evaluation process, which are described below. Even though the evaluation and selection will be conducted in steps, the fact that Canada has proceeded to a later step does not mean that Canada has conclusively determined that the Respondent has successfully passed all the previous steps. Canada may conduct steps of the evaluation in parallel.
- 4.1.3. An evaluation team composed of representatives of Canada will evaluate the Responses on behalf of Canada. Canada may retain any independent consultant, or use any resources of Canada, to assist the evaluation team on all or any portion of any Response. Not all members of the evaluation team will necessarily participate in all aspects of the evaluation. By submitting a Response, Respondents consent to the release of those Responses to the third-party consultants retained by Canada, subject to Canada's obtaining its usual confidentiality undertakings from these third-party consultants.
- 4.1.4. In addition to any other time periods established in the solicitation process:
- (a) Requests for Clarifications: If Canada seeks clarification or verification from the Respondent about its Response, the Respondent will have two (2) working days (or a longer period if specified in writing by the Contracting Authority) to provide the necessary information to Canada;
 - (b) Requests for Survey: If Canada wishes to survey the Respondent's facilities, to verify claimed experience, the Respondent must make its facilities available for this purpose within ten (10) working days (or a longer period if specified in writing by the Contracting Authority) of a request by the Contracting Authority; and
 - (c) Extension of Time: If additional time is required by the Respondent, the Contracting Authority may grant an extension at his or her sole discretion.

4.2. Technical Evaluation

- 4.2.1. Each Response will be reviewed for compliance with the mandatory requirements of this RFRE. Responses that do not comply with each and every mandatory requirement will be considered non-responsive and be disqualified.
- 4.2.2. The Mandatory Technical Criteria are described in Annex F to this RFRE.

4.3. Reference Checks

- 4.3.1. Reference checks for the purpose of this evaluation are used to verify and validate the Respondent's Response. If the information provided by the Respondent cannot be verified and validated, the information will not be evaluated and the Response will receive no credit for the experience claimed.
- 4.3.2. The Respondent is requested to provide a third-party reference for each project as well as an alternate in its Response as requested in Annex F. If information requested is not provided in the Response, the Respondent will have two (2) working days (or a longer period if specified in writing by the Contracting Authority) to provide the necessary information to Canada. References from representatives of Canada will be accepted.
- 4.3.3. If Canada decides to verify or validate references, Canada will contact the primary reference to validate and verify experience claimed by the Respondent. The alternate will be contacted only should the first reference not be available. If the individual is unavailable when required during the evaluation period, Canada will contact the alternate reference provided by the Respondent. The reference will have five (5) working days (or a longer period if specified in writing by the Contracting Authority) to respond to Canada.
- 4.3.4. In conducting its evaluation of the Responses, Canada may, but will have no obligation to, do the following:
- (a) contact any or all references supplied by Respondents to verify and validate any information submitted by them;
 - (b) seek clarification or verification from Respondents regarding any or all information provided by them with respect to the RFRE solicitation.
- 4.3.5. Only referenced material included within the Respondent's Response will be evaluated. Reference material outside of the Respondent's Response will not be considered. It is the sole responsibility of Respondents to provide sufficient information so that their Responses can be adequately evaluated.

4.4. Basis of Qualification

4.4.1. To be declared responsive, a Response must:

- (a) comply with all the requirements of this RFRE (other than satisfaction of the National Security Requirements described in Part 6, clause 6.2.);
- (b) satisfy all of the Mandatory Technical Criteria (Annex F to this RFRE) and financial capability requirements described in Part 6, clause 6.3.; and
- (c) provide the information required pursuant to the National Security Requirements described in Part 6, clause 6.2. herein.

4.4.2. Responses not meeting (a) and (b) and (c) will be declared non-responsive.

4.4.3. Responses deemed responsive to (a) and (b) and (c) will be selected as Qualified Respondents to participate in the detailed consultations and, if applicable, the RFP Stage and Contract Finalization Stage of this procurement process.

4.5. Conduct of Evaluation

4.5.1. In clause 4.5., references to the Respondent are deemed to mean, and the provisions of clause 4.5. apply to and in respect of:

- (a) the Respondent (if the Respondent is a single entity);
- (b) each Team Member and/or Joint Venture Participant (if the Respondent is comprised of a Respondent Team and/or Joint Venture); and
- (c) each Guarantor.

4.5.2. In conducting its evaluation of the Responses, Canada may, but will have no obligation to, do the following:

- (a) contact any or all references supplied by Respondents to verify and validate any information submitted by them;
- (b) seek clarification or verification from Respondents regarding any or all information provided by them with respect to the solicitation;
- (c) request, before qualification under the RFRE, specific information with respect to Respondents' legal status;
- (d) conduct a survey of Respondents' facilities and/or examine their technical, managerial, and financial capabilities to determine if they are adequate to meet the requirements of the RFRE solicitation;

- (e) verify any information provided by Respondents through independent research, use of any government resources or by contacting third parties; and
- (f) interview, at the sole costs of Respondents, any Respondent and/or any or all of the resources proposed by Respondents to fulfill the requirement of the RFRE solicitation.

4.5.3. Subject to clause 4.1.4., Respondents will have the number of days specified in the request by Canada to comply with any request related to any of the above items. Failure to comply with the request will result in the Response being declared non-responsive.

4.6. **Notification of Evaluation Results**

4.6.1. Canada anticipates notifying Respondents of their evaluation results following each Response Intake Date, prior to the next Response Intake Date. Please refer to clause 2.18. (Disclosure and Transparency).

4.6.2. Notification of the results of the National Security Requirements assessment relative to the First and Second Response Intake Dates will be made prior to the Final Response Intake Date.

4.7. **Debriefings**

4.7.1. Subject to clause 4.7.2., after Respondents have been notified by Canada that their Response has been evaluated, Respondents may request a debriefing on the results of their Response evaluation. Respondents should make the request to the Contracting Authority within 15 calendar days of receipt of notification of the result of their Response evaluation. For clarification purposes, debriefing opportunities will be provided after each Response Intake Date. Only written debriefings will be provided.

4.7.2. If Canada determines that a Respondent is not eligible to continue to participate in the RFRE Stage and the RFP Stage of the procurement process due to the results of such Respondent's National Security Requirements assessment, Canada will not provide any information or reasons regarding any determination made under the National Security Requirements assessment process to the Respondent (including any determination made in connection with any changes to the information provided in a Response in the circumstances referred to in clause 6.2.6. or otherwise) and the Respondent has no right to such information or reasons. No debriefings on the results of the National Security Requirements assessment will be offered.

PART 5 - CERTIFICATIONS

5.1. Overview

5.1.1. Respondents must provide the required certifications to be considered for qualification under this RFRE. In clause 5, references to the Respondent are deemed to mean, and the provisions of clause 5 apply to and in respect of: (i) the Respondent (if the Respondent is a single entity); (ii) each Team Member and/or Joint Venture Participant (if the Respondent is comprised of a Respondent Team and/or Joint Venture); and (iii) each Guarantor.

5.1.2. Compliance with the certifications Respondents provide to Canada is subject to verification by Canada throughout the RFRE Stage of this procurement process. The Contracting Authority will have the right to ask for additional information to verify Respondents' certifications. Failure to comply with this request will also result in the rejection of a Respondent's Response to the RFRE.

5.2. Integrity Provisions – Responses and Certifications

5.2.1. Pursuant to Part 2, clause 2.25.4., (Integrity Provisions - Responses and Certifications), Respondents will submit a complete list of names of all individuals who are currently directors of the Persons specified in such clause.

5.3. Certification

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

5.4. Certification Compliance

5.4.1. Compliance with the certifications provided by the Respondent in its Response is a condition of the RFRE and subject to verification by Canada at any time. If the Respondent does not comply with any certification or it is determined that any certification made by the Respondent in its Response is untrue, whether made knowingly or unknowingly, Canada has the right to disqualify the Respondent.

PART 6 - SECURITY, FINANCIAL AND OTHER REQUIREMENTS

6.1. Security

- 6.1.1. There are security requirements associated with this RFRE.
- 6.1.2. There will be two data rooms in the RFRE process. The unprotected data room and the protected data room.
- 6.1.3. The unprotected data room will contain unclassified/unprotected information that has been previously provided to suppliers during the RFI stage. Access to the information contained in the unprotected data room will be provided to those suppliers requesting access in accordance with the instructions described in Annex E (Requirements for Access to Data Rooms (GFI)) to this RFRE.
- 6.1.4. The protected data room will contain classified/protected information as well as new unclassified/unprotected information that has not been previously provided to suppliers during the RFI stage of the procurement process. Access to the information contained in the protected data room will be provided to Qualified Respondents who have (a) signed the Non-Disclosure Agreement attached as Annex H (Non-Disclosure Agreement) to this RFRE, (b) satisfied the security requirements for access to classified/protected information, and (c) requested access to the protected data room in accordance with the instructions described in Annex E (Requirements for Access to Data Rooms (GFI)) to this RFRE.
- 6.1.5. In response to feedback provided by suppliers during industry consultations and in the RFI responses, required security levels for access to classified/protected information contained in the protected data room and for participation in the detailed consultations have been reduced from the levels originally anticipated during the RFI.
- 6.1.6. In addition, in an effort to expedite security clearances, AECL has taken over the responsibility of processing security requests.
- 6.1.7. Qualified Respondents during the RFRE Stage will require:
 - (a) Designated Organization Screening (DOS) at Reliability (or equivalent);
 - (b) Document Safeguarding at Protected B (or equivalent);
 - (c) Facility Site Clearance at Protected B (or equivalent); and
 - (d) Personnel security screening at Reliability (or equivalent).

- 6.1.8. Respondents are requested to confirm with AECL if already granted the appropriate level of security clearance or to begin the process in order to obtain the necessary clearances required of a Qualified Respondent.
- 6.1.9. Current Canadian Industrial Security Directorate (CISD) or International Industrial Security Directorate (IISD) security clearances will be recognized by AECL.
- 6.1.10. All Respondents are requested to provide their certificate of clearance to AECL at the following e-mail address: corpsec@aecl.ca or if the Respondent has not received notice of clearance, to contact immediately the AECL representative identified in Article 6.1.12. so AECL can provide the Respondent with a list of necessary information to provide in order to obtain the clearances required.
- 6.1.11. Where a Respondent is comprised of a Respondent Team and/or Joint Venture, each Team Member and/or Joint Venture Participant is requested to identify a prioritized list of individuals that will be required to be cleared in order to participate in the detailed consultations, the RFRE Stage and, if applicable, the RFP Stage of this procurement process. AECL will concentrate on clearing the first five names on such Team Member and/or Joint Venture Participant's prioritized list in an effort to ensure that each Team Member and/or Joint Venture Participant is represented during the procurement process. Any additional names will be cleared to the extent possible to meet the anticipated timelines of this procurement process.
- 6.1.12. Any questions regarding the new security clearance process should be addressed to the AECL representative:
Francine Rochefort at the email address corpsec@aecl.ca
- 6.1.13. The RFP will detail the security requirements that the Preferred Bidder will be anticipated to obtain to become the Contractor. It is currently anticipated that these requirements will include:
- (a) the level of Designated Organization Screening (DOS) at Secret;
 - (b) Document Safeguarding at Secret; and
 - (c) Personnel security screening at Secret with a select number of designated resources at the level of Top Secret.
- 6.1.14. It is the responsibility of the Respondent to ensure that the information required concerning the security clearance is provided on time to AECL.

6.2. **National Security Requirements**

- 6.2.1. It is a condition of this procurement process that the Respondent comply with the national security requirements described below in clauses 6.2.3. and 6.2.7. (collectively, the "National Security Requirements") by providing all required

information as part of its Response. For clarity, the satisfaction of the National Security Requirements by a Respondent is not a condition to such Respondent becoming a Qualified Respondent. In clause 6.2., references to the Respondent are deemed to mean, and the provisions of clause 6.2. apply to and in respect of:

- (a) the Respondent (if the Respondent is a single entity);
- (b) each Team Member and/or Joint Venture Participant (if the Respondent is comprised of a Respondent Team and/or Joint Venture); and
- (c) each Guarantor.

6.2.2. The National Security Requirements will extend to the Contractor (including the Respondent and, if applicable, the Team Members and Joint Venture Participants) and each Guarantor, through the provisions of the Contract.

6.2.3. The Respondent, and if the Respondent is not a single entity and is comprised of a Respondent Team and/or a Joint Venture, then each Team Member and/or Joint Venture Participant, as the case may be, each Guarantor, and any Controlling Person (as defined in clause 6.2.4(c). below) of each of the foregoing, must be legally organized and have its principal place of business in:

- (a) Canada, or
- (b) a country that has:
 - a. a government-to-government arrangement with Canada for the exchange and safeguarding of protected and classified information and assets (<http://ssi-iss.tpsgc-pwgsc.gc.ca/ssi-iss/int/si-is-eng.html>)

and

- b. a Nuclear Cooperation Agreement with Canada.

6.2.4. Each Respondent is requested to provide in its Response the following detailed information about its organizational structure:

- (a) the jurisdiction in which the Respondent is legally organized (if the Respondent is an individual, then provide the Respondent's citizenship and country of residency);
- (b) the jurisdiction in which the Respondent's principal place of business is located;

- (c) a list identifying all Persons that Control (as defined in clause 6.2.9.) the Respondent (each such Person, a “Controlling Person”);
- (d) the jurisdiction in which the Controlling Person is legally organized (if the Controlling Person is an individual, then provide the Controlling Person’s citizenship and country of residency); and
- (e) the jurisdiction in which the Controlling Person’s principal place of business is located.

6.2.5. Canada reserves the right to request from the Respondent additional information in order for Canada to conduct a complete National Security Requirements assessment of the Respondent. In its request, Canada will indicate a timeframe to provide the requested information. Failure to provide the requested information within the timeframe requested will result in the rejection of the Respondent's Response to this RFRE.

6.2.6. A Respondent must immediately notify the Contracting Authority of any changes to the information provided in its Response in respect of clause 6.2.4., which it was required to include in its Response, or in response to a request made under clause 6.2.5. Canada may, in its sole and absolute discretion, terminate a Respondent’s qualification under the RFRE, if it determines that the Respondent or any Controlling Person thereof no longer meets the requirements of clause 6.2.3.

6.2.7. All Respondents in respect of whom the Respondent and each Controlling Person thereof has met the requirements in clause 6.2.3. will be subject to review pursuant to Canada’s nuclear safety, non-proliferation and security considerations. Canada will, in its sole and absolute discretion, consider and determine whether each Respondent is eligible to continue to participate in the RFRE Stage and the RFP Stage of the procurement process.

6.2.8. The Respondent, by submitting a Response, acknowledges its acceptance of the National Security Requirements assessment process and that Canada’s determination resulting from that process is final. In accepting Canada’s National Security Requirements assessment process, the Respondent agrees that it will not commence any legal proceeding regarding any determination made by Canada under the National Security Requirements assessment process.

6.2.9. For the purposes of clause 6.2. only “Control” means with respect to a Person :

(a) any other Person, or one or more other Persons acting jointly or in concert, having beneficial ownership (whether directly or indirectly through one or more Persons) of more than 20 percent of the voting shares or other ownership interests of the first Person,

or;

(b) having the power (whether through ownership of voting shares or other ownership interests, by contract or otherwise) to elect a majority of the directors of a Person that is a corporation or otherwise control the decisions made by or on behalf of that Person.

6.2.10. The Qualified Respondent (including, if applicable, the Team Members and the Joint Venture Participants) and each Guarantor are prohibited from transferring outside of Canada any controlled nuclear information and/or technology. The phrase “controlled nuclear information and/or technology” means nuclear information such as design specifications, technical data, drawings and models subject to the *Nuclear Safety and Control Act*, the *Export and Import Permits Act*, the Nuclear Non-proliferation Import and Export Control Regulations, the Export Permit Regulations and any other applicable legislation.

6.3. **Financial Capability**

6.3.1. The Respondent must have the financial capability to fulfill the requirements of the future Contract. If the Respondent is not a single entity but is instead comprised of a Respondent Team and/or a Joint Venture, then the financial capability of each Prime Team Member will be assessed. The financial capability assessment of the Respondent (if the Respondent is a single entity) or each Prime Team Member (if the Respondent is comprised of a Respondent Team and/or Joint Venture) will include the financial capability of each Guarantor.

6.3.2. The analysis could be both static and historical, including the current state of the Respondent (or each Prime Team Member and/or Guarantor, as the case may be) and its evolution from year to year. A ratio analysis may be performed in different areas such as cash flow, asset management, debt management and profitability. Predicting models are also used to assess the likelihood of a cessation of business activities.

6.3.3. The Respondent’s credit information may be requested through a credit rating company to help establish the Respondent’s financial capability.

6.3.4. Canada may request additional information from the Respondent with respect to its line of credit, cash flow forecasting and any other relevant information.

6.3.5. If the Respondent is not a single entity and is comprised of a Respondent Team and/or a Joint Venture, the financial information required by the Contracting Authority pursuant to sub-clauses 6.3.5.(a) to (e) herein should be provided by each Prime Team Member and Guarantor, as applicable. All references to the Respondent in sub-clauses 6.3.5.(a) to (e) are deemed to be references to each Prime Team Member and Guarantor. To determine the Respondent's financial capability, the Respondent, is requested to submit the financial information detailed below as part of its Response:

- (a) audited financial statements, if available, or the unaudited financial statements (prepared by the Respondent's outside accounting firm, if available, or prepared in-house if no external statements have been prepared) for the Respondent's five most recently completed fiscal years, or for the years that the Respondent has been in business if this is less than five years (including, as a minimum, the Balance Sheet, the Statement of Retained Earnings, the Income Statement and any notes to the statements);
- (b) if the date of the financial statements in (a) above is more than five months before the date of the request for information by the Contracting Authority, the Respondent should also provide, unless this is prohibited by legislation for public companies, the last quarterly financial statements (consisting of a Balance Sheet and a year-to-date Income Statement), as of two months before the date of Response submission;
- (c) if the Respondent has not been in business for at least one full fiscal year, the following should be provided:
 - i. the opening Balance Sheet on commencement of business (in the case of a corporation, the date of incorporation); and
 - ii. the last quarterly financial statements (consisting of a Balance Sheet and a year-to-date Income Statement) as of two months before the date of Response submission.
- (d) certification from the Chief Financial Officer or an authorized signing officer of the Respondent that the financial information provided is complete and accurate, including disclosure of the following:
 - i. Any material existing or potential claims, litigation or proceedings against the Respondent. In the event that there are material existing or potential claims, litigation or proceedings, the Respondent is

requested to describe how such potential damages will be supported;

- ii. Confirmation that there is no material adverse change that is not otherwise disclosed in the financial information;
- iii. Confirmation of no material off-book financing arrangements not reflected in information already provided; and
- iv. For entities debt-rated by a credit rating agency, a copy of the most recent credit rating report (including credit warnings produced since the publication of said report) from each agency that rates the Respondent's debt, or confirmation that no such ratings exist.

- (e) a confirmation letter from all of the financial institution(s) that have provided short-term financing to the Respondent outlining the total of lines of credit granted to the Respondent and the amount of credit that remains available and not drawn upon as of one month prior to the date on which the Contracting Authority requests this information.

6.3.6. In addition, and in any case, the Response should include a letter of support from each Guarantor confirming its intention to comply with the requirements and obligations of the Guarantors described in this RFRE if, as and when they arise, including with respect to the delivery of the Guarantees.

6.3.7. Financial Information Already Provided to PWGSC: The Respondent is not required to resubmit any financial information requested by the Contracting Authority that is already on file at PWGSC with the Contract Cost Analysis, Audit and Policy Directorate of the Policy, Risk, Integrity and Strategic Management Sector, provided that within the above-noted time frame:

- (a) the Respondent identifies to the Contracting Authority in writing the specific information that is on file and the requirement for which this information was provided; and
- (b) the Respondent authorizes the use of the information for this requirement.

6.3.8. It is the Respondent's responsibility to confirm with the Contracting Authority that this information is still on file with PWGSC.

6.3.9. Canada reserves the right to request from the Respondent any information as detailed under this clause 6.3.9. (Financial Capability). In its request, Canada will

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg,23240-120758

CCC No. /N° CCC - FMS No./N° VME

indicate a timeframe to provide the requested information. Failure to provide the requested information within the timeframe requested will result in the rejection of the Respondent's Response to the RFRE.

- 6.3.10. Other Information: Canada reserves the right to request from the Respondent any other information that Canada requires to conduct a complete financial capability assessment of the Respondent.
- 6.3.11. Confidentiality: If the Respondent provides the information required above to Canada in confidence while indicating that the disclosed information is confidential, then Canada will treat the information in a confidential manner as permitted by the *Access to Information Act*, R.S., 1985, c. A-1, Section 20(1) (b) and (c).
- 6.3.12. In the event that a Response is found to be non-responsive on the basis that the Respondent is considered not to be financially capable of performing the subject requirement, official notification shall be provided to the Respondent.

ANNEX A: DRAFT GENERAL REQUIREMENTS

1. Scope

1.1. *Purpose and Objectives*

1.1.1. Purpose

On February 28, 2013, the Minister of Natural Resources announced that the Government of Canada (Canada) would undertake a competitive procurement seeking a Contractor to manage the Site Operating Company (SOC) that will be responsible for the management and operation of Atomic Energy of Canada Limited's (AECL's) Nuclear Laboratories under a Government-owned, Contractor-operated (GoCo) model (the AECL GoCo procurement). Going forward, the Nuclear Laboratories will focus on three key areas:

- (i) managing radioactive waste and decommissioning responsibilities;
- (ii) performing science and technology (S&T) activities to meet core federal responsibilities; and
- (iii) supporting Canada's nuclear industry through access to S&T facilities and expertise on a commercial basis.

1.1.2. Objectives

1.1.2.1. The objective of this procurement is to procure the services of a Contractor that will significantly transform AECL's Nuclear Laboratories to ensure that the SOC leverages the capabilities and resources to successfully: deliver nuclear S&T-related products and services to government and third-party customers, and fulfill decommissioning and waste management needs, while containing and reducing costs and financial risks for Canadian taxpayers over time.

1.1.2.2. The objective is expected to be met through (i) ensuring that nuclear safety is not compromised, (ii) efficient decommissioning and waste management; (iii) new revenue generation; (iv) solving complex technical, financial and regulatory issues; (v) use of best practices and innovative approaches that will enable productivity and efficiency improvements, and (vi)

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

ensuring that the Nuclear Laboratories sustain a healthy nuclear safety culture and are safely and securely managed; and that capabilities, resources and infrastructure required to satisfy AECL's mandate are maintained.

2. Background

2.1. In 2009, Canada announced the restructuring of AECL, a Crown corporation, with the goal of reducing the costs and risks facing AECL and Canada, while putting in place the conditions for Canada's nuclear sector to seize new opportunities. The restructuring focused first on the divestiture of the former CANDU Reactor Division (CRD), which successfully closed in October 2011 with the sale of the assets of the CRD to Candu Energy Inc., a wholly-owned subsidiary of SNC-Lavalin Inc.

2.2. In February 2012, Canada issued a Request for Expression of Interest No. 23240-120758/A to assess stakeholder interest in managing or investing in AECL, and received 46 responses from a variety of stakeholders including the private sector, local communities, academic institutions, provincial government organizations, industry associations and employees, employee groups and retirees.

2.3. On June 20, 2013, Canada officially launched the procurement process with an Industry Day. This was followed by a Request for Information (RFI) issued on July 19, 2013 (No. 23240-120758/D). The purpose was to inform interested suppliers about the proposed procurement process and timelines and to solicit feedback on certain aspects of the procurement, including the Request for Response Evaluation (RFRE) phase. During the RFI phase, interested suppliers visited AECL Chalk River and Whiteshell and engaged in one-on-one meetings with Canada.

3. Anticipated Contracting Model

3.1. *Anticipated Contracting Model Overview*

3.1.1. AECL will establish a wholly-owned subsidiary, the SOC, which will manage and operate AECL's Nuclear Laboratories. The creation of the SOC will be directed by Canada and will occur in parallel with the procurement process prior to the signing of the Contract. The SOC will be responsible for the day-to-day operations of the Nuclear Laboratories and assume all of the management and operational responsibilities that would otherwise be performed by AECL.

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

- 3.1.2. AECL will transfer the majority of its employees to the SOC. In addition, AECL will enter into agreements with the SOC for the use and management of AECL's property, buildings and facilities.
- 3.1.3. AECL will also license to the SOC the existing AECL intellectual property (IP) that is necessary for the SOC to perform its obligations described in the SOC Agreement, subject to AECL's existing commitments relating to IP, including non-compete obligations. It is also anticipated that the SOC would be licensed to operate the AECL Nuclear Laboratories sites and facilities by the Canadian Nuclear Safety Commission.
- 3.1.4. Once the Preferred Bidder is selected through the procurement process, AECL will:
- 3.1.4.1. enter into a Contract with the Preferred Bidder's Special Purpose Vehicle (a corporation to be incorporated by the Preferred Bidder under the laws of Canada or a province or territory thereof), otherwise known as the Contractor and the SOC, pursuant to which the Contractor will acquire the shares of the SOC from AECL; and
 - 3.1.4.2. once the Contract has been executed, AECL will enter into the SOC Agreement with the SOC.
- 3.1.5. As the owner of the shares of the SOC, the Contractor will be able to appoint the SOC's Board of Directors, subject to any contractual or licensing constraints. The Contractor may also second executives and staff as required to the various AECL sites, consistent with the Contractor's Bid in response to the RFP.
- 3.1.6. Following the execution of the Contract and the SOC Agreement, the roles and responsibilities of the four main parties will be as follows:
- 3.1.6.1. Natural Resources Canada/Government of Canada will continue to be responsible for broad government nuclear policy, strategic direction, and government-to-government relationships. Canada will retain the liabilities relating to contamination in the Port Hope area and other historic wastes.
 - 3.1.6.2. AECL will be responsible for management of the Contract, with a focus on strategic oversight and assurance. As part of Contract management, AECL will also be responsible for verifying that the SOC carries out its obligations in

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

accordance with the terms of the SOC Agreement. AECL will also have a role to ensure that the actions of the SOC are consistent with Canada's strategic direction. AECL will remain the owner of the assets and intellectual property, subject to terms and conditions that will govern the ownership of new intellectual property, which will be described in an intellectual property licence agreement. AECL will license the IP to the SOC and provide access to AECL's assets that, in each case, are necessary for the SOC to perform its obligations as described in the SOC Agreement. AECL will make payments to the SOC in respect of the SOC's operating costs and will retain legacy liabilities.

3.1.6.3. The SOC, as a wholly-owned subsidiary of the Contractor, will be responsible for the day-to-day operations and management of the Nuclear Laboratories (including all sites) and for planning, delivery and execution of the work in accordance with the terms of the SOC Agreement. It will employ the main workforce and hold the regulatory licenses.

3.1.6.4. The Contractor, which will own the shares of the SOC, will appoint the SOC management team, and ensure that the SOC carries out its contractual obligations to AECL. The Contractor is expected to guarantee the SOC's performance of its obligations under the SOC Agreement.

3.1.7. Over the course of the Contract, the Contractor will be expected to affect transformational change to best achieve Canada's objectives. In this context, Canada anticipates that the payment mechanism will compensate the Contractor based, in part, on its success in achieving change; sharing in cost and project timeline risks; and realizing cost savings and increased commercial revenues.

3.1.8. It is anticipated that the duration of the Contract will be six years and Canada will have an option to renew for four years.

3.1.9. The procurement process will lead to the selection of a single contractor to satisfy all requirements. However, note that more than one agreement may be needed to cover all requirements. For example, Canada may enter into separate target-cost agreements with the SOC for the Whiteshell and Nuclear Power Demonstration projects, as the timelines and basis of payment may be different from the main Contract.

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

3.2. ***Fee Structure***

3.2.1. The fee structure may include a mix of fixed fees, performance incentive fees and target–cost fees. Fees will be structured to pay for performance to the extent possible and will incorporate evolving performance measures for the delivery of an annual program of work and incentives over the term of the Contract.

4. **Statements of Work**

4.1. ***Draft Contractor and SOC Statements of Work for Detailed Consultation***

4.1.1. Attached as Appendix 1 is a draft Statement of Work (SOW) for the Contractor, which will be among the topics for discussion during the detailed consultations.

4.1.2. Attached as Appendix 2 is a draft SOW for the SOC, which will be among the topics for discussion during the detailed consultations.

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

APPENDIX 1 TO ANNEX A – CONTRACTOR DRAFT STATEMENT OF WORK

Table of Contents

1. Introduction	63
2. Requirements for Contractor SOW	64
2.1. <i>General requirements</i>	64
2.2. <i>Science and Technology (S&T)</i>	66
2.3. <i>DWM</i>	67
2.4. <i>Waste Management</i>	67
2.5. <i>Site Operations and Infrastructure</i>	67
2.6. <i>Project Management</i>	68
2.7. <i>Integrated Planning and Business Operations</i>	68
3. Glossary of Terms	68

1. Introduction

This draft Statement of Work (SOW) sets out the scope of work that the Contractor will perform in ensuring that the Site Operating Company (SOC) manages and operates the Atomic Energy of Canada Limited (AECL) assets and other resources and delivers products and services using those assets and resources. This draft SOW also establishes the scope of work that the Contractor will deliver that is related to other federal obligations or requests as determined by AECL. For the purpose of this Appendix, AECL's capabilities and expertise, which are to become those of the SOC, and the AECL assets and resources, are collectively referred to as the Nuclear Laboratories.

Canada's objective is that the Contractor will significantly transform AECL's Nuclear Laboratories to ensure that the SOC leverages its capabilities and resources to successfully: deliver nuclear S&T-related products and services to government and third-party customers, and fulfill decommissioning and waste management needs, collectively the "Primary Missions", while containing and reducing costs and financial risks for Canadian taxpayers over time.

The objective is expected to be met through (i) ensuring that nuclear safety is not compromised, (ii) optimized decommissioning and waste management; (iii) new revenue generation; (iv) solving complex technical, financial and regulatory issues; (v) use of Good Industry Practices and innovative approaches that will enable productivity and efficiency improvements, and (vi) ensuring that the Nuclear Laboratories sustain a healthy nuclear safety culture and are safely and securely managed, and that capabilities, resources and infrastructure required to satisfy AECL's mandate are maintained.

This SOW defines the work in six categories:

- 1) General requirements imposed on the Contractor in order for it to achieve the objectives of Canada.
- 2) S&T – ensuring the performance of science and technology (S&T) activities to meet core federal responsibilities and supporting Canada's nuclear and non-nuclear industry through access to S&T facilities and expertise on a commercial basis.
- 3) DWM – ensuring the management of the Decommissioning of contaminated nuclear facilities and Waste Management (WM) program responsibilities to reduce the long-term cost and liabilities of the Nuclear Laboratories.
- 4) Site Operations and Infrastructure – ensuring the management of the Nuclear Laboratories' property, sites, buildings, facilities, licenses and intellectual property (IP) ensuring that the

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

Nuclear Laboratories are safely and securely managed and that the capabilities, resources and infrastructure are maintained.

- 5) Project Management – ensuring effective project management disciplines across all of the Nuclear Laboratories programs and operations.
- 6) Integrated Planning and Business operations – ensuring integrated management excellence in all operations and programs across the Nuclear Laboratories.

The Work to be performed by the Contractor pursuant to the final SOW will be subject to AECL's existing contractual obligations and restrictions, including for greater certainty, its obligations and restrictions relating to the maintenance, use and exploitation of AECL's IP, and in accordance with the applicable regulatory regime.

The Contractor will ensure that the SOC take any reasonable action to expeditiously address regulatory and/or safety concerns that arise.

The Work to be performed will be carried out at all of the sites below, collectively, the "Nuclear Laboratories Sites":

- (a) Chalk River Laboratories, ON
- (b) Fredericton, NB
- (c) Whiteshell Laboratories, MB
- (d) Ottawa, ON
- (e) La Prade (Bécancour), QC
- (f) Port Granby/Port Hope, ON
- (g) Douglas Point, ON
- (h) Gentilly 1, QC
- (i) Nuclear Power Demonstration Reactor, ON

For more detailed information on AECL and its current sites and activities, please refer to Annex C: Background on AECL.

2. Requirements for Contractor SOW

2.1. General requirements

2.1.1. The Contractor shall ensure that the SOC:

- (i) maintains nuclear safety as the overriding priority;
- (ii) manages, operates, protects, maintains and enhances the Nuclear Laboratories' ability to function as a multi-purpose nuclear laboratory;
- (iii) provides the infrastructure and supports activities to facilitate the achievement of the Nuclear Laboratories' Primary Missions; and,
- (iv) accomplishes the Nuclear Laboratories' Primary Missions as articulated by the SOC SOW.

The Contractor shall be accountable to the results-oriented, performance-based provisions of the SOC Agreement.

2.1.2. The Contractor shall ensure that the Nuclear Laboratories are transformed to better leverage and make most effective, competitive and efficient use of the Nuclear Laboratories' capabilities and resources.

2.1.2.1. The Contractor shall provide a highly-qualified management team for the SOC by placing personnel for whom the Contractor will be responsible, within the SOC senior management team for the express purpose of ensuring that the SOC meets all its obligations set out in the SOC SOW.

2.1.2.2. The Contractor shall also provide the personnel for other positions as necessary to achieve the objectives of the Contractor SOW.

2.1.3. The Contractor shall ensure that the SOC transforms the Nuclear Laboratories' S&T capabilities to exploit the Nuclear Laboratories' activities, technologies and capabilities.

2.1.4. The Contractor shall ensure improved value from the Nuclear Laboratories by reducing net costs to Canada over time, including through such actions as increasing revenues.

2.1.5. The Contractor shall ensure that the SOC reduces the cost of the Nuclear Laboratories' liabilities in the most effective manner through optimizing the overall required Decommissioning and Waste Management (DWM) of the Nuclear Laboratories Sites.

2.1.5.1. The Contractor shall ensure that the SOC prioritizes the Work on a risk and cost basis and carries it out in a safe, compliant and effective manner, leading to significant progress towards reducing the footprint and waste liabilities at the Nuclear Laboratories' Sites.

2.1.6. The Contractor shall ensure that the SOC manages the infrastructure and support services, and renews these in a manner that optimizes the ability to deliver on the Nuclear Laboratories' missions at overall reduced cost to Canada. All this work will be accomplished in a safe, cost-effective and secure manner through business and management systems that enable

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

mission success geared to commercial cost competitiveness in national and international markets.

2.1.7. The Contractor shall ensure that the SOC undertakes integrated business planning leading to transformational change at the Nuclear Laboratories. This integrated business planning should be reflected in the annual work plans to be developed by the SOC.

2.1.8. The Contractor shall ensure that the SOC performs the obligations set out in the SOC Agreement, including delivering on the SOC SOW, with the Contractor remaining accountable for the performance of the SOC.

2.1.9. The Contractor shall ensure that the SOC employs industry leading practices in change management in the implementation of all changes outlined above and identified in the Statements of Work consistent with: regulatory obligations, Canadian labour law, and union collective agreements as they are amended from time to time, without precluding other relevant considerations and requirements.

2.2. *Science and Technology (S&T)*

2.2.1. The Contractor shall ensure that the SOC transforms the Nuclear Laboratories S&T capability to: 1) efficiently service the needs of the Government, 2) exploit the Nuclear Laboratories' technologies, both within and beyond the nuclear industry, subject to AECL's existing contractual obligations, which are outlined in Annex C 4.6, and 3) support other activities of the SOC.

2.2.2. The Contractor shall ensure that the Nuclear Laboratories be a leader and strong voice in Canada's nuclear sector and enable an ongoing leadership role for the Nuclear Laboratories in the international community.

2.2.3. The Contractor shall ensure that the SOC assesses the infrastructure and operating assets of the Nuclear Laboratories as part of the development of the Site Master Plan, to identify the long-term usefulness of those assets to support the Nuclear Laboratories three related but distinct S&T missions. The Site Master Plan shall propose the appropriate actions to optimize the operation, maintenance or deactivation of the site assets and infrastructure. The Contractor will ensure that the SOC recommends the transfer, where appropriate, of buildings and assets to the DWM program, such that the ongoing S&T commitments are as cost effective as possible, and identifies the long-term financial implications of these recommendations showing their benefit. The Contractor shall ensure that the SOC then implements the approved actions.

2.3. DWM

2.3.1. The Contractor shall ensure that the SOC fully integrates all DWM and environmental activities of the Nuclear Laboratories to seek out and implement innovative approaches to achieve operational enhancements and cost efficiencies with continued emphasis on operational excellence.

2.3.2. The Contractor shall ensure that the SOC proceeds, at AECL's request and acceptance, to propose plans to restructure and more efficiently deliver the DWM programs to decrease the costs, the timeframes, and the long-term liabilities.

2.3.3. The Contractor shall ensure that the SOC maintains, revises as requested and accepted by AECL, and efficiently delivers on the DWM long-term plan.

2.3.4. The Contractor shall ensure that the SOC considers and applies Good Industry Practices in developing an approach to target costing and associated contractual frameworks to undertake closure and DWM of Nuclear Laboratories assets that do not have an ongoing mission.

2.4. Waste Management

2.4.1. The Contractor shall ensure that the SOC develops and implements efficiencies, cost savings, disposal, and long-term storage in regards to WM at Nuclear Laboratories Sites when disposal is not feasible within the first 10 years.

2.5. Site Operations and Infrastructure

2.5.1. The Contractor shall ensure that the SOC has, and implements, an optimized company-wide program for operational excellence based on Good Industry Practices for its operations. The program will include SOC compliance with all relevant regulations and standards, drives excellence in nuclear safety, and supports the SOC in delivering the programs in the SOC SOW on time, at a reasonable cost. The program will also ensure that the SOC operates the Nuclear Laboratories Sites in a manner which is compliant with all applicable standards and regulatory requirements for health, safety, security and the environment (HSSE).

2.5.2. The Contractor shall ensure that the SOC cost-effectively renews, revitalizes, and recapitalizes the infrastructure required to sustain the ongoing Primary Missions of the Nuclear Laboratories.

2.5.3. The Contractor shall ensure that the SOC transforms the operating culture at the Nuclear Laboratories to be proactive at developing reasonable, cost-effective standards and processes.

2.5.4. The Contractor shall ensure that the SOC proactively prepares proposals for a new Site Master Plan that will: optimize the Nuclear Laboratories' overall operating facilities and transfer unneeded assets to the DWM program; right size the total operations to reduce costs, while maintaining facilities that are reasonably needed to support the Primary Missions of the Nuclear Laboratories; and reduce the total cost of liabilities through efficient clean up in the DWM mission. Optimization of the Nuclear Laboratories Sites could include the physical consolidation of ongoing activities to cost effectively reduce the operating physical footprint.

2.5.5. The Contractor shall ensure that the SOC optimizes the SOC workforce and subcontracting practices to achieve the overall objectives of the SOC SOW, which include ensuring the long-term capabilities of the Nuclear Laboratories.

2.6. ***Project Management***

2.6.1. The Contractor shall ensure that the SOC drives excellence in project management performance such that products and services are consistently delivered to customer expectations, on schedule and within budget.

2.7. ***Integrated Planning and Business Operations***

2.7.1. The Contractor shall ensure that the SOC demonstrates integrated management excellence in all operations and programs across the Nuclear Laboratories Sites. As a part of this work, the Contractor will ensure that the SOC conducts strategic and integrated long-range (multi-year) planning for the Nuclear Laboratories, its programs and facilities.

3. **Glossary of Terms**

Decommissioning – Decommissioning as used in this appendix generally applies to facilities and includes all man-made structures and includes the following activities:

- (a) regulatory analysis and preparation of documents as required;
- (b) deactivation (utilize isolation, re-routing of the utilities, removal of hold up materials, etc.);
- (c) decontamination (characterization, hazardous material abatement activities, removal of equipment);
- (d) decommissioning; and,
- (e) disposition which also includes disposal, refurbishment, or demolition (demolishing man-made/components including building slabs and below-grade features within the immediate building footprint area) of structures/components.

Site Operating Company – has the meaning specified in the RFRE to which this SOW is attached.

APPENDIX 2 TO ANNEX A

SITE OPERATING COMPANY - DRAFT STATEMENT OF WORK

Table of Contents

1. INTRODUCTION AND GENERAL REQUIREMENTS	71
2. SCIENCE AND TECHNOLOGY (S&T)	74
2.1. General	74
2.2. Support of Federal Priorities	74
2.3. Other S&T Activities for Government of Canada Organizations	75
2.4. Commercial Work for Third Parties	75
2.5. Internal Laboratories Support	76
2.6. Obligations to Maintain and Enhance Capabilities	76
2.7. Additional Non-Government of Canada Funding for New Investments	78
2.8. Full Cost Recovery of S&T Services	78
3. DECOMMISSIONING AND WASTE MANAGEMENT (DWM)	78
3.1. General	78
3.2. Long-Term Plan	79
3.3. Decommissioning	79
3.4. Waste Management (WM)	81
4. OTHER COMMERCIAL ACTIVITIES	85
4.1. General	85
5. PROJECT, DESIGN, AND CONSTRUCTION MANAGEMENT	86
5.1. General	86
6. SUBCONTRACTING	87
6.1. General	87
7. SITE OPERATIONS AND INFRASTRUCTURE	87
7.1. General	87
7.2. Nuclear Operations	88

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg,23240-120758

CCC No. /N° CCC - FMS No./N° VME

7.3.	Site Property Management and Services	89
7.4.	Infrastructure Capital Maintenance and Improvement	90
7.5.	Site Operations	90
7.6.	Quality Assurance (QA)	94
8.	INTEGRATED PLANNING, BUSINESS OPERATIONS, LEGAL SERVICES, PUBLIC AFFAIRS AND COMMUNICATIONS	94
8.1.	General	94
8.2.	Integrated Planning and Business Operations	94
8.3.	Legal Affairs	98
8.4.	Communications and Public Affairs	98
8.5.	Reports and Other Deliverables	98
9.	GLOSSARY OF TERMS	99

1. Introduction and General Requirements

This draft Statement of Work (SOW) describes the overall work to be performed by the Site Operating Company (SOC) in managing and operating Atomic Energy of Canada Limited's (AECL's) assets and other resources which collectively comprise the Nuclear Laboratories. Its purpose is to identify certain requirements and/or restrictions relating to the delivery of products and services using those assets and resources to meet the obligations or requests as determined by AECL. The SOW, in its final form, will be part of the SOC Agreement. For the purpose of this statement of work, AECL's capabilities and expertise, which are anticipated to become those of the SOC and AECL's assets and resources, are collectively referred to herein as the "Nuclear Laboratories".

Canada's objective is that the SOC leverages its capabilities and resources to successfully: deliver nuclear S&T-related products and services to government and third-party customers, and fulfill decommissioning and waste management needs, collectively the "Primary Missions", while containing and reducing costs and financial risks for Canadian taxpayers over time.

The objective is expected to be met through (i) ensuring that nuclear safety is not compromised, (ii) efficient decommissioning and waste management; (iii) new revenue generation; (iv) solving complex technical, financial and regulatory issues; (v) use of Good Industry Practices and innovative approaches that will enable productivity and efficiency improvements, and (vi) ensuring that the Nuclear Laboratories sustain a healthy nuclear safety culture and are safely and securely managed, and that capabilities, resources and infrastructure required to satisfy AECL's mandate are maintained.

The SOC shall, in a safe, compliant, and cost-effective manner, manage, operate and sustain the capability of the Nuclear Laboratories over the term of the SOC Agreement.

This SOW defines the work associated with the Nuclear Laboratories in seven sections:

- 1) S&T - performing science and technology (S&T) activities to meet core federal responsibilities and supporting Canada's nuclear and non-nuclear industry through access to science and technology facilities and expertise on a commercial basis
- 2) DWM - managing the decommissioning of contaminated nuclear facilities and Waste Management (WM) program responsibilities to reduce the legacy liabilities of the Nuclear Laboratories
- 3) Other Commercial Activities – effective management of the other Nuclear Laboratories commercial services

Solicitation No. - N° de l'invitation
23240-120758/F

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411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

- 4) Project, Design, and Construction Management – effective project management disciplines across all of the Nuclear Laboratories programs and operations
- 5) Subcontracting – effective use of subcontracted services
- 6) Site Operations and Infrastructure - management of the Nuclear Laboratories' real and personal property, sites, buildings, facilities, licenses and Intellectual Property (IP) ensuring that the Nuclear Laboratories are safely and securely managed and that the capabilities, resources and infrastructure are maintained
- 7) Business Operations - integrated management across the Nuclear Laboratories including long range planning and the use of business, legal, HR, and communication systems to maximize cost-effective and efficient performance

The work to be performed by the SOC pursuant to this SOW will be subject to AECL's existing contractual obligations and restrictions, including for greater certainty, its obligations and restrictions relating to the maintenance, use and exploitation of AECL's IP, and in accordance with the applicable regulatory regime.

In addition, the activities described in this SOW will be delivered through the implementation of an annual program of work that will be required to be submitted to and accepted by AECL. In many cases, the annual program of work will be informed by multi-year plans to be developed and maintained by the SOC, and identified in this SOW. The SOC shall develop all plans as required in the SOC Agreement. The SOC shall carry out all activities described in the SOW in accordance with those plans but subject to receipt of certain acceptances to be set out in the SOC Agreement.

The SOC shall report at least annually on performance against plans and measures in response to contractual, regulatory, and legal obligations. The SOC will report periodically in-year to AECL and will seek approvals to changes in plans according to procedures identified in the SOC Agreement.

The SOC will be the holder of all CNSC issued licences, and must fulfill all obligations and requirements of the nuclear Safety and Control Areas (SCA) and associated regulations of these licences. The SOC will manage staff and processes to demonstrate compliance with these requirements.

Regardless of the approved annual program of work, the SOC shall take any reasonable action to expeditiously address regulatory and/or safety concerns as they arise. Approval for those actions by AECL will not be required where the SOC is acting reasonably (e.g. where necessary actions need to be taken in short order); however, the SOC shall inform AECL of its actions related to addressing the concerns as well as related costs.

The work to be performed will be carried out at all of the sites below, collectively, the "Nuclear Laboratories' Sites":

- (a) Chalk River Laboratories, ON
- (b) Fredericton, NB
- (c) Whiteshell Laboratories, MB
- (d) Ottawa, ON
- (e) La Prade (Bécancour), QC
- (f) Port Granby/Port Hope, ON
- (g) Douglas Point, ON
- (h) Gentilly 1, QC
- (i) Nuclear Power Demonstration Reactor, ON

For more detailed information on AECL and its current sites and activities, please refer to Annex C: Background on AECL. The SOC shall:

- (i) maintain nuclear safety as the overriding priority;
- (ii) manage, operate, protect, maintain and enhance the Nuclear Laboratories' ability to function as a multi-purpose nuclear laboratory;
- (iii) provide the infrastructure and support activities to facilitate the achievement of the Nuclear Laboratories' Primary Missions; and
- (iv) accomplish the Nuclear Laboratories' Primary Missions as articulated in this SOW.

The SOC shall transform the Nuclear Laboratories to better leverage, exploit, and make most effective, competitive and efficient use of the Nuclear Laboratories' capabilities, technologies, assets and resources.

The SOC shall employ industry leading practices in change management in the implementation of all changes outlined in this SOW and consistent with: regulatory obligations, Canadian labour law, and union collective agreements as they are amended from time to time, without precluding other relevant considerations and requirements.

2. Science and Technology (S&T)

2.1. General

- 2.1.1. The SOC shall carry out the operations of the Nuclear Laboratories necessary to sustain, develop, apply and build the nuclear S&T capabilities in a cost-effective manner with an appropriately sized and staffed organization.
- 2.1.2. The SOC shall provide technical services and research and development products in support of: 1) Federal roles, responsibilities and priorities; 2) commercial work for third parties, subject to AECL's existing contractual obligations and restrictions; and 3) the other activities of the SOC as described herein.
- 2.1.3. The SOC shall enhance the Nuclear Laboratories' professional stature in Canada and globally.
 - 2.1.3.1. The SOC shall develop a comprehensive set of strategic performance measures that fit the Nuclear Laboratories' future Government of Canada and third party business needs.
 - 2.1.3.2. The SOC shall implement these measures, baseline performance against the measures, report on progress, and propose growth goals.
- 2.1.4. The SOC shall manage S&T project performance such that products and services are consistently delivered in accordance with any required client specifications, on time and within budget.

2.2. Support of Federal Priorities

- 2.2.1. The SOC shall support Canada's S&T needs, which includes performing work as directed by AECL or the Government of Canada to meet core federal responsibilities in nuclear S&T services, policy and advice and any other areas in which the Nuclear Laboratories have products, services and capabilities needed by Canada.
 - 2.2.2. The SOC will deliver the S&T services needed for the Federal Nuclear S&T Program, as determined by a Federal Interdepartmental Committee and communicated by AECL.
 - 2.2.3. As required by AECL, the SOC shall work with the Federal Interdepartmental Committee to assist in determining an ensemble of projects that will fit within the scope and priorities of the Federal Nuclear S&T Program, and, at the same time, help to support and maintain facilities and capabilities identified by the Federal Interdepartmental Committee as being important to ensure federal roles and responsibilities can be fulfilled.
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2.3. *Other S&T Activities for Government of Canada Organizations*

2.3.1. The SOC shall sustain and pursue opportunities for strengthening existing and developing new relationships with Government of Canada organizations to provide S&T services outside of the scope of the Federal Nuclear S&T Program.

2.3.2. The SOC shall be responsive to any requests to support federal ad-hoc S&T needs.

2.3.2.1. In particular, the SOC shall support, on a priority basis, any service requests from the Government of Canada arising in the event of a nuclear emergency as determined by AECL.

2.4. *Commercial Work for Third Parties*

2.4.1. The SOC shall provide to third parties (who include, without limitation, national and international private industry, academia, and other public institutions and organizations) S&T products and services and access to Nuclear Laboratories facilities subject to AECL's existing contractual obligations and restrictions.

2.4.2. The SOC shall sustain and grow the commercial work for third parties through, but not limited to, outstanding customer service, key technical capabilities, specialized facilities, cost competitiveness, an integrated and effective Quality Assurance Program, and effective balancing of the portfolio of needs to deliver on all Government of Canada and customer expectations such that additional revenue streams and improved facility utilization will result.

2.4.3. The SOC shall provide support, as requested and on a commercial basis, to the nuclear power industry to address their emergent technical challenges or other service needs. This support includes, without limitation:

- (a) support to the operators of CANDU reactors;
- (b) support to Candu Energy Inc. in the servicing of the existing CANDU fleet and in the development and deployment of any future advanced CANDU power systems; and
- (c) testing and analysis services and research and development services to support future nuclear power systems other than CANDU that may be deployed in Canada or elsewhere, subject to AECL's existing contractual obligations and restrictions.

2.4.4. The SOC shall develop and build the portfolio of S&T products and services provided to third parties across the nuclear and non-nuclear sectors, nationally

and internationally, subject to AECL's existing contractual obligations and restrictions.

2.5. Internal Laboratories Support

2.5.1. The SOC shall provide the S&T products and services needed for the SOC to perform its other obligations under this SOW.

2.6. Obligations to Maintain and Enhance Capabilities

The SOC shall manage the maintenance and readiness of its S&T capabilities, people, facilities and collaborations, as well as commercialization efforts and internal laboratory research, described herein within the total budget created from the margins obtained from the burdened rates charged to its Federal and third party S&T and other commercial customers or through other non-Government of Canada funding.

2.6.1. Capabilities

2.6.1.1. The SOC shall manage the Nuclear Laboratories' S&T capabilities to ensure that the Nuclear Laboratories retains operational S&T capacity to fulfill the S&T obligations across the entire scope of this SOW in a safe and cost-effective manner.

2.6.1.2. The SOC shall ensure that the necessary capabilities of the Nuclear Laboratories' S&T assets and the know-how of S&T personnel remain ready and able to provide the expert technical support required in the event of a nuclear emergency when and as requested by AECL.

2.6.2. Facilities

2.6.2.1. The SOC shall review all existing S&T facilities in consideration of their long-term mission and sustainability, and make recommendations to AECL on their maintenance, renewal shutdown, or replacement where indicated.

2.6.2.2. Where appropriate, the SOC will recommend to AECL through the annual program of work the transfer of buildings and assets to the DWM program, such that the on-going S&T commitments are as cost effective as possible, and identifies the long-term financial implications of these recommendations showing their benefit. The SOC shall then implement the approved actions.

2.6.2.3. The SOC shall provide a business case for any significant facility infrastructure recommendations.

2.6.3. People

- 2.6.3.1. The SOC shall recruit, develop, and maintain the necessary qualified scientists, technologists, technicians and engineers at all levels in the SOC as required to meet the obligations of this SOW and promote technical excellence that is recognized nationally and internationally.
- 2.6.3.2. The SOC shall review the key technical personnel capabilities required to support future Nuclear Laboratories' S&T activities, and report on this along with an action plan to build and/or reinforce these key capabilities in the SOC.
- 2.6.3.3. The SOC, through its S&T activities and collaborations, shall support development of Highly Qualified Personnel (HQP) in the areas of S&T that will support the Canadian nuclear sector.

2.6.4. Collaborations

- 2.6.4.1. The SOC shall manage, grow, and strengthen S&T collaborations with third parties where supported by an appropriate documented rationale in line with carrying out the Nuclear Laboratories' missions.

2.6.5. Commercialization

- 2.6.5.1. The SOC shall support exploitation of its technology (including through business spinoffs, intellectual property licensing or other innovative means), subject to AECL's existing contractual obligations and restrictions.
- 2.6.5.2. The SOC shall encourage technology exploitation within the Nuclear Laboratories through a reasonable system of recognitions and rewards for personnel who are responsible for the development and commercial application of new knowledge and technologies, subject to AECL's existing contractual obligations and restrictions.

2.6.6. Activities to Stimulate Development

- 2.6.6.1. The SOC shall support S&T activities at the Nuclear Laboratories to stimulate the development of novel knowledge, products and services that could result in commercial opportunities, subject to AECL's existing contractual obligations and restrictions. These S&T activities are to be carried out within the overall full-cost recovery framework for the Nuclear Laboratories.

2.7. *Additional Non-Government of Canada Funding for New Investments*

- 2.7.1. Where additional funding is available from private or public sector sources other than the Government of Canada for specific investments in S&T facilities, expertise or capabilities, that funding can be used by the SOC, where the specific and funded investments are aligned with the Nuclear Laboratories' Primary Missions, and ownership of the relevant investment and resulting product is consistent with the SOC Agreement.
- 2.7.2. Any resulting investments shall be reviewed and subject to acceptance by AECL.

2.8. *Full Cost Recovery of S&T Services*

- 2.8.1. The SOC shall ensure that the pricing for federal, commercial, and internal S&T services is established in a manner to ensure that, overall, at a minimum the full costs of the provision of S&T services and the sustainability of the Nuclear Laboratories' capabilities are covered by total non-DWM revenues, excluding revenues and costs associated with heavy water activities and molybdenum-99 production pursuant to the terms of certain agreements existing at the time of signing the SOC Agreement.
- 2.8.2. As an exception to the above, internal S&T services to support non-third-party DWM will be covered through DWM funding provided by the Government.
- 2.8.3. The SOC shall review annually the full-cost recovery methodology described in 2.8.1 and define its pricing approach in its annual program of work.

3. *Decommissioning and Waste Management (DWM)*

3.1. *General*

- 3.1.1. The SOC shall perform the DWM accountabilities of this SOW in the most cost-efficient manner. This work is to be carried out in a safe, compliant and cost-effective manner with continued emphasis on operational excellence.
 - 3.1.2. The SOC shall fully integrate all DWM and environmental activities at the Nuclear Laboratories facilities to achieve operational enhancements (e.g. pollution prevention, waste minimization, optimal storage, disposal, and deployment of new technologies) and cost efficiencies.
 - 3.1.3. The SOC shall deliver DWM of nuclear facilities and waste management: (i) at Nuclear Laboratories' Sites; (ii) at sites under Canada's responsibility where requested by AECL to provide services; and (iii) for other third party support that may be identified.
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3.1.4. The SOC shall develop risk assessments and prepare risk management plans.

3.2. **Long-Term Plan**

3.2.1. The SOC shall maintain the overall DWM Long-Term Plan, which includes site specific plans for the sites discussed below.

3.2.2. The SOC shall revise the DWM Long-Term Plan, only as requested and accepted by AECL.

3.3. **Decommissioning**

3.3.1. General

3.3.1.1. The SOC shall maintain the priority list and schedule of all existing and assigned Decommissioning facilities and projects.

3.3.1.2. The Decommissioning work shall be performed and completed consistent with regulatory agreements, master planning strategies and management decisions that may include consideration of specific buildings for re-use in the near term or longer.

3.3.1.3. The SOC shall secure any additional regulatory approvals required to carry out the Decommissioning work identified below.

3.3.1.4. The Decommissioning of below-grade structures shall be coordinated with site cleanup goals and the subsequent remediation of environmental media (e.g. soils, piping, etc.).

3.3.2. Chalk River Laboratories (CRL)

3.3.2.1. The SOC shall coordinate the Decommissioning activities along with other CRL site activities so as to optimize achievement of the overall objectives of this SOW.

3.3.3. Whiteshell Laboratories (WL)

3.3.3.1. The SOC shall assess, develop a plan for, and perform all aspects of Decommissioning activities under a target-cost approach to reach the contract end state of WL.

3.3.3.2. The Decommissioning Plan for WL shall consider the expected ongoing needs for use of the S&T facilities at WL.

3.3.4. Other Nuclear Laboratories' Sites

3.3.4.1. The Decommissioning program includes other Nuclear Laboratories' Sites (identified below) which will require decommissioning and closure.

3.3.4.1.1. The SOC shall manage the Decommissioning of these sites in a safe, compliant and cost-effective manner, and in accordance with licences, until remaining Decommissioning activities can begin.

3.3.4.2. Nuclear Power Demonstration (NPD) Prototype Reactor Site

3.3.4.2.1. The SOC shall accomplish all aspects of Decommissioning and closure of the NPD prototype reactor at Rolphton, Ontario, near CRL, under a target-cost approach by leveraging the WM capabilities of CRL for managing Low Level Waste (LLW) and other wastes.

3.3.4.3. Douglas Point Prototype Reactor Site

3.3.4.3.1. The SOC shall explore, with Bruce Power, Ontario Power Generation, and other site stakeholders, opportunities to optimize the cost of the Decommissioning to achieve closure of the assets.

3.3.4.4. Gentilly-1 Prototype Reactor Site

3.3.4.4.1. The SOC shall explore with Hydro-Québec and the other site stakeholders opportunities to optimize the cost of the Decommissioning to achieve closure of the assets.

3.3.4.5. La Prade Heavy Water Facility

3.3.4.5.1. The SOC shall plan for the appropriate Decommissioning to achieve closure of the La Prade Heavy Water Facility, which is located near the Gentilly-1 Prototype Reactor.

3.3.4.5.2. The SOC shall, in developing the plan, consider ongoing requirements for storage of AECL's heavy water assets, business needs, licence obligations, and any other relevant factors.

3.4. Waste Management (WM)

3.4.1. General

- 3.4.1.1. The SOC shall be responsible for the management and disposition of all materials and wastes generated by the SOC and accepted from third parties, under commercial terms, including from sources such as historic wastes, federal wastes, CNSC-related wastes from small institutional producers (e.g., hospitals) and wastes from private sector producers.
- 3.4.1.2. The SOC shall ensure that all waste streams are identified, that operating practices for each of the waste streams reflect Good Industry Practices, and that all aspects of the WM program are conducted in a safe, compliant and cost effective.
- 3.4.1.3. As requested by AECL, the SOC shall assess opportunities at all stages of the waste life-cycle, including but not limited to: waste minimization, waste re-use, waste treatment, recycling, waste packaging, short- and long-term waste storage, and on- and off-site waste disposal.
- 3.4.1.4. The SOC shall manage large waste management initiatives in accordance with Good Industry Practices for international project management.
- 3.4.1.5. Based on Good Industry Practices, the SOC shall, on an on-going basis, review and evaluate its own WM practices and, if necessary, shall reflect any appropriate changes through the planning process.

3.4.2. CRL and WL

3.4.2.1. Ground Water

- 3.4.2.1.1. The SOC shall conduct investigation, characterization, and development of preliminary remediation goals for the remediation of groundwater as needed.
- 3.4.2.1.2. The SOC shall conduct groundwater monitoring and ongoing ground water treatment activities, in accordance with licence obligations and regulatory requirements.

3.4.2.2. Clean Waste (CW)

- 3.4.2.2.1. The SOC shall apply Good Industry Practices to reduce costs for handling the existing clean waste stream and optimize the

clean waste management program in a manner compliant with regulatory requirements.

3.4.2.2.2. The SOC shall implement an effective process for managing clean, normally recycled or recyclable waste such that these waste streams are not intermingled with “suspect waste” or Very Low Level Waste (VLLW).

3.4.2.3. Very Low Level Waste (VLLW)

3.4.2.3.1. The SOC shall examine this waste stream and pursue segregation and disposal considering a graded risk approach, including on- and off-site disposal.

3.4.2.4. Low Level Waste (LLW)

3.4.2.4.1. The SOC shall identify and pursue opportunities to change and optimize LLW management practices to reduce handling, improve the schedule and reduce costs. This scope includes the development of Waste Acceptance Criteria (WAC), which address radioactivity limits, materials contents, acceptable waste forms, and packaging.

3.4.2.4.2. The SOC shall conduct studies to ascertain a preferred option for a site for LLW disposal.

3.4.2.4.3. The SOC shall engage with the regulator and its staff as it determines the requirements for LLW disposal, considering existing and proposed disposal facilities in Canada and other countries. The safety basis and engineering design will be prepared as necessary to move the option through the approval process.

3.4.2.4.4. The SOC shall bring international Good Industry Practices to demonstrate the acceptability of LLW disposal methods that fit the needs of the Nuclear Laboratories for such options as: (1) near surface engineered landfill disposal facilities; or (2) concrete vault disposal technologies.

3.4.2.4.5. Pending the commissioning and operation of a permanent LLW disposal site, the SOC shall continue storage, but only as long as necessary until permanent disposal is available.

3.4.2.4.6. The SOC shall seek and identify LLW management and disposal options that may be viable, including the prospect of a public-private partnership project for an on- or off-site LLW

disposal facility. When off-site waste treatment options are contemplated, the life-cycle cost of the options and import/export provisions shall be carefully considered.

3.4.2.5. Intermediate Level Waste (ILW)

- 3.4.2.5.1. Based on Good Industry Practices, the SOC shall review and evaluate current practices for handling and storage of ILW and, if necessary, shall reflect any appropriate changes through the planning process.
- 3.4.2.5.2. The SOC shall evaluate and pursue options to optimize the containers where ILW is stored, seeking containers suitable for storage, transportation, and disposal, eliminating any requirements for treatment where possible.
- 3.4.2.5.3. The SOC shall evaluate the potential to consolidate AECL's ILW storage to improve management and achieve cost efficiencies and shall develop disposal options.
- 3.4.2.5.4. The SOC shall seek opportunities in additional volume reduction to minimize required storage space.

3.4.2.6. High Level Waste (HLW)

- 3.4.2.6.1. This waste does not currently have a final disposition site and therefore must be safely stored on site until a geologic repository is eventually sited, constructed, and operational for receipt. A key component of the HLW program will be to maintain oversight and management of long-term (>50 years) HLW storage facilities, in the most cost-effective manner.
 - 3.4.2.6.1.1. The SOC shall evaluate the potential to consolidate AECL's HLW storage to improve management and achieve cost efficiencies, and include any plans in the annual program of work and/or Long-Term Plan.
 - 3.4.2.6.1.2. The SOC shall consider options for HLW consolidation in any potential cost-contained approach, such as target-cost proposals.
 - 3.4.2.6.2. In planning for HLW disposal, the SOC shall ensure compliance with the Nuclear Waste Management Organization's (NWMO) processes for fuel disposal as and when directed by AECL.
-

3.4.2.7. Ground Contamination

3.4.2.7.1. The SOC shall conduct feasibility studies as necessary to determine the most appropriate remediation of ground contamination in areas where waste was directly buried in trenches or pits or in areas surrounding above or below ground structures and determine the appropriateness/necessity of excavating waste storage areas such as the standpipes and the tile holes, consistent with all environmental and licensing requirements, and then implement the acceptable remediation approach in the most cost-effective manner available.

3.4.3. Other Nuclear Laboratories' Sites

3.4.3.1. The SOC shall provide the WM services required during the Decommissioning activities at other Nuclear Laboratories' Sites.

3.4.3.2. The SOC shall explore opportunities to optimize WM with the stakeholders of the Bruce Power, OPG and Hydro-Québec sites where Nuclear Laboratories facilities are co-located, as appropriate to seek additional efficiencies that may be beneficial to the objectives of this SOW.

3.4.4. Port Hope

3.4.4.1. The SOC shall perform most of AECL's obligations and responsibilities for the Port Hope Area Initiative, as set out in applicable agreements and licences and in a safe, compliant and cost-effective manner.

3.4.5. Low Level Radioactive Waste Management Office (LLRWMO)

3.4.5.1. The SOC shall perform most of AECL's obligations and responsibilities for the LLRWMO agreement with Natural Resources Canada.

3.4.5.2. The SOC shall bring to bear Good Industry Practices to reduce Canada's liabilities being managed under this program.

3.4.6. Third Party WM Services Provided by CRL

3.4.6.1. The SOC shall accept third party wastes for disposition as agreed to between the parties, the SOC and AECL and based on, and subject to, AECL's existing contractual obligations and restrictions.

3.4.6.2. The SOC shall provide waste management services for low- and/or intermediate-level wastes to third parties where such opportunities enhance the objectives of this SOW and are accepted by AECL, subject

to AECL's existing contractual obligations and restrictions. Contracts with new clients will require approval by the Government of Canada.

3.4.6.3. The SOC shall undertake, as requested by AECL, to provide WM support and services in response to other Government of Canada needs that may be identified from time to time.

3.4.6.3.1. In particular, the SOC shall support, on a priority basis, any service requests from the Government of Canada arising in the event of an emergency as determined by AECL.

3.4.7. Internal WM Services

3.4.7.1. The SOC shall manage all wastes streams produced by the activities of the SOC at CRL including but not limited to Decommissioning, S&T, other commercial services as well as operations, and provide the Nuclear Material Handling (NMH) services to support them.

3.4.8. Full-Cost Recovery of WM Services at CRL

3.4.8.1. The SOC shall ensure that all WM and NMH services provided to other internal or third parties are undertaken on an at least full-cost recovery basis, including any long-term liabilities associated with the processing, storage, and disposal of any such waste streams.

3.4.8.2. The SOC shall ensure that the long-term liability for any internal or accepted third party wastes is adequately funded through revenues or that contracts with third parties are based on a long-term partnership structure whereby the third party assumes the responsibility to pay for the management at least at the costs incurred. In the case of services for Canada, this requirement may be met by booking the liabilities in the Public Accounts of Canada.

3.4.8.3. The SOC shall maintain a system of accounts to report on the status and viability of the trust fund for the disposal of commercial wastes.

4. Other Commercial Activities

4.1. *General*

4.1.1. In conjunction with the DWM plans for the site, the SOC shall manage the heavy water storage facility at La Prade as directed by AECL.

4.1.2. The SOC shall manage the production of medical and other isotopes in a safe, compliant, and cost-effective manner to meet the needs of its isotopes customers. Canada has announced its intention to cease production of the

molybdenum-99 (Mo-99) from the NRU beyond October 2016, but production of other isotopes, for medical and non-medical applications, may continue

- 4.1.3. The SOC can explore opportunities for other commercial activities that are generally aligned with the mandate of the Nuclear Laboratories and the terms of the SOC Agreement. If a potential commercial activity is identified, the SOC shall seek acceptance from AECL through the annual program of work. In-year opportunities for new commercial activities shall be reported to AECL and subject to AECL acceptance.

5. Project, Design, and Construction Management

5.1. General

- 5.1.1. The SOC shall drive excellence in project management performance through the effective use of a Project Management System that consistent with Good Industry Practices across all of the Nuclear Laboratories programs and operations to deliver projects on schedule, within budget, and enabling mission performance. The Project Management System shall include a graded approach in conjunction with delegations of approvals and oversight commensurate with the scope, scale, and strategic importance of the projects being managed.
- 5.1.2. The SOC shall perform project, design and construction management, including but not limited to: design and risk analysis, value engineering, configuration management and control, conceptual designs, preliminary designs, material testing, and surveying in support of architectural and engineering designs; final designs and construction drawings; and as-built drawings pursuant to construction inspections, surveying, and material-testing services for all SOC activities that support AECL and other customer needs. All of the above shall be done in accordance with the obligations of site and facility licence requirements.
- 5.1.3. The SOC shall provide the skills necessary to incorporate the appropriate safety and quality level requirements for all facilities up to and including nuclear facilities, while meeting project cost and time constraints and milestones.
- 5.1.4. The SOC shall manage all new build projects to ensure on time and within cost completion of construction to design standards through to hand over for startup and operation.
- 5.1.5. The SOC shall implement Good Industry Practices for managing and providing general oversight of contractors selected to perform any major projects, including any design-build contracts. This will include ensuring appropriate contractor safety practices.
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6. Subcontracting

6.1. General

- 6.1.1. The SOC shall identify opportunities to maximize the benefits for Canada, including seeking delivery effectiveness and cost efficiencies, by using subcontractors in meeting the obligations of this SOW.
- 6.1.2. The SOC shall develop well defined statements of work when subcontracting portions of this SOW that seek efficiencies in subcontracted program execution and seek to promote/develop a capable nuclear supply chain industry in Canada.
- 6.1.3. The SOC shall maximize the cost effectiveness of managing its workforce vs. enhanced subcontracting practices in achieving the overall objectives of this SOW which include ensuring the long-term capabilities of the Nuclear Laboratories.
- 6.1.4. It is currently anticipated that the SOC will be permitted to subcontract obligations under the SOC Agreement to other Persons (including affiliates of the SOC and the Contractor), subject to certain standards and conditions relating thereto that may be specified in the SOC Agreement in order to address actual or potential conflicts of interest, with the intention of ensuring that all subcontracts appropriately reflect Canada's economic interests. For example, it is anticipated that such standards and conditions will include a requirement that the SOC develop and maintain formalized procurement policies, practices and procedures that will result in fair, open and competitive procurement processes. In addition, with any proposed subcontract with an affiliate or that is a sole source, in either case involving payments above a specified monetary threshold, the terms subcontract will be subject to AECL's prior consent. All procurements will be subject to varying levels of oversight by AECL from time to time
- 6.1.5. The SOC shall implement Good Industry Practices for subcontractor selection and management practices.

7. Site Operations and Infrastructure

7.1. General

- 7.1.1. The SOC shall manage, operate, protect, maintain and enhance the Nuclear Laboratories' ability to function as a multi-program nuclear laboratory, provide the infrastructure and support activities, and support the accomplishment of the Nuclear Laboratories' missions as articulated by this SOW.
-

7.1.2. The SOC shall coordinate site operations and infrastructure activities with those of the DWM and S&T programs to ensure the most effective, efficient and appropriate use of supporting infrastructure.

7.1.3. The SOC shall conduct all of its operations and fulfill all its responsibilities in compliance with (i) all applicable laws, acts, regulations, international treaties to which Canada is a party, codes and standards, by-laws and best practice guidelines (e.g. compliance with health, safety, security and environmental requirements), and (ii) the terms and conditions of all licences, permits, certificates and similar authorizations issued by regulatory bodies or their agents, whether municipal, provincial, federal or industry appointed. The SOC shall also review, optimize and implement relevant policies, procedures, standards and requirements.

7.2. ***Nuclear Operations***

7.2.1. Nuclear Facility Operations

7.2.1.1. The SOC shall maintain nuclear safety as the overriding priority.

7.2.1.2. The SOC shall oversee, manage, operate and maintain all the nuclear facilities, including, but not limited to the NRU, fuel fabrication, and hot cell facilities, in compliance with all regulatory requirements and optimizing the operations to reflect Good Industry Practices and to meet the Primary Missions of the Nuclear Laboratories.

7.2.1.3. The SOC shall ensure that all management systems and operating controls comply with CNSC licences, the licence condition handbook, and all of the safety and control areas (SCAs). The current list of SCAs includes: management system, human performance management, operating performance, safety analysis, physical design, fitness for service, radiation protection, conventional health and safety, environmental protection, emergency management and fire protection, waste management, security, safeguards and non-proliferation, and packaging and transport.

7.2.2. Nuclear Materials Handling

7.2.2.1. The SOC shall ensure that nuclear materials are managed and transported safely, minimizing risk to nuclear workers or the public in compliance with regulations and using Good Industry Practices.

7.3. *Site Property Management and Services*

- 7.3.1. The SOC shall manage real property, including facilities and infrastructure, both leased from AECL and acquired, to perform assigned mission work to meet the short-term and long-term objectives of this SOW at lower net cost to Canada.
- 7.3.2. The SOC shall manage, operate and maintain in good repair and condition all real property, buildings, landscaping, forestry, roadways, equipment and other physical assets necessary to perform the activities of this SOW, including environmental management services, energy, utility and municipal services and site infrastructure maintenance.
- 7.3.3. Real property management shall include providing appropriate office space for the Contract/Project Authority Site Office and the CNSC as requested by AECL.
- 7.3.4. The SOC shall perform overall integrated planning, acquisition, maintenance, operation, management and disposition of Nuclear Laboratories' real property and SOC-leased facilities and infrastructure used by the Nuclear Laboratories. While performing this responsibility, the SOC shall align its actions with the development and approval of the Site Master Plan (referred to in 7.4.1 below).
- 7.3.5. The SOC shall use a performance-based approach to real property life-cycle asset management to perform overall integrated planning, acquisition, upgrades, and management of owned, leased or controlled facilities and real property accountable to the Nuclear Laboratories. The SOC shall employ leading facilities management practices that are integrated with mission assignments and business operations.
- 7.3.6. The SOC shall ensure that maintenance management program is based on Good Industry Practices to maintain property in a manner which: (1) promotes and continuously improves nuclear safety, operational safety, environmental protection and compliance, property preservation and cost effectiveness, (2) ensures continuity and reliability of operations, fulfillment of program requirements and protection of life and property from potential hazards, and (3) ensures the condition of all assets will be maintained, or will continuously improve where necessary for the ongoing delivery of the mandate, over the period of performance.
- 7.3.7. The SOC shall manage the provision of site services such as food, laundry, transportation, fleet management, stores, and shipping and handling.

7.4. Infrastructure Capital Maintenance and Improvement

- 7.4.1. The SOC shall develop and implement a multi-site 10-year Site Master Plan (including utilities and maintenance).
- 7.4.1.1. In developing and implementing the Site Master Plan, the SOC shall ensure that the necessary facilities and support are available to enable successful mission performance in maintaining and building the Nuclear Laboratories' capabilities and commercial lines of business and completing the DWM work in a timely and cost-effective manner.
- 7.4.1.2. The Site Master Plan shall optimize: (1) the physical footprint of the Nuclear Laboratories operating facilities; (2) the maximum effectiveness of the S&T program; and (3) the transfer of unnecessary assets to the DWM program, as appropriate.
- 7.4.1.3. In implementing the Site Master Plan with respect to new facilities, in order to manage financial resources prudently, the SOC will pursue public private partnerships and alternative/third-party financing to ensure the availability of facilities to enable mission work at the Nuclear Laboratories.
- 7.4.1.3.1. The SOC shall provide to AECL for approval a business case supporting any such opportunities.
- 7.4.1.4. The SOC shall review and update the Site Master Plan on a yearly basis, and shall implement the updated Site Master Plan.
- 7.4.2. The SOC shall manage, maintain and recapitalize, in accordance with the approved Site Master Plan, all Nuclear Laboratories' assets necessary to perform the work contemplated by this SOW.
- 7.4.3. The SOC shall provide services relating to the project management of capital improvements for general infrastructure, including but not limited to initiating and planning projects, managing projects within cost categories, monitoring and controlling project performance, ensuring the execution of projects (including construction and commissioning) and managing project warranties.

7.5. Site Operations

7.5.1. General Approach

- 7.5.1.1. The SOC shall perform the obligations set out in this SOW in a manner that ensures excellent conduct of: nuclear operations; health and safety of employees and the public; protection of the environment;
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safeguarding classified information; and protecting special nuclear material.

- 7.5.1.2. In performing the work, the SOC shall ensure through its management systems that site operation activities meet or exceed the needs and expectations required for the SOC to perform the Primary Missions and activities of the Nuclear Laboratories, including by using integrated and effective Work Planning and Quality Assurance programs.
- 7.5.2. Health, Safety, Security, Environment (HSSE)
- 7.5.2.1. The SOC shall conduct a Health, Safety, Security and Environment program, including environmental protection and compliance, and safety and health management that (1) achieves an institutionalized HSSE conscious culture that embraces conduct of operations and allows work to be performed safely, (2) assigns unambiguous roles, responsibilities, authorities, develops appropriate work controls and ensures accountability for the performance of work in a manner that ensures protection of workers, the public and the environment, (3) integrates excellence in HSSE into all Nuclear Laboratories activities, and (4) meets all applicable laws and regulations.
- 7.5.2.2. The SOC shall take necessary actions to prevent serious injuries and/or fatalities, keep worker exposure and environmental releases below established limits, minimize the generation of waste, and maintain or increase protection to the environment, public and worker safety and health.
- 7.5.2.3. The SOC shall, as appropriate, conduct natural and cultural resource compliance and protection programs including: monitoring, surveillance, and reporting with respect to all natural and cultural resources; obtaining and maintaining required permits and licences from regulatory agencies; and, applicable certification and training programs.
- 7.5.2.4. To ensure the safe performance of all Nuclear Laboratories work, the SOC shall develop and implement an Integrated Management System that establishes integrated safety management and sound HSSE management processes as well as formal work control and work performance processes.
- 7.5.2.5. The Integrated Management System and program of processes shall be comprehensive in nature, covering all work performed under this SOW.
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- 7.5.2.6. The SOC shall ensure that the implementation of the Integrated Management System addresses nuclear safety requirements including, but not limited to: (1) a robust safety authorization basis process, (2) system engineering and configuration management of structures, systems and components important to safety, (3) quality assurance, (4) stabilization and disposition of used fuel and nuclear materials, and (5) startup and restart of nuclear facilities.
- 7.5.2.7. The SOC shall implement an environmental management system (waste minimization, pollution prevention, etc.) within the Integrated Management System.
- 7.5.2.8. The SOC shall implement a hazard categorization and analysis process, a startup and restart process, as well as a safety authorization basis process for non-nuclear facilities for moderate- and high-hazard facilities/operations.
- 7.5.2.9. The SOC shall ensure implementation of a formal HSSE performance based self-assessment process addressing both HSSE program and line management implementation that is (1) risk based and has the requisite depth, breadth, rigor and defensibility, (2) conducted with the appropriate subject matter expertise, (3) performance and behavior based, and (4) tied to an institutional issues management program that ensures closure of findings and opportunities for improvement.
- 7.5.2.10. The SOC shall ensure implementation of an HSSE performance measurement program that ensures comprehensive gathering of operational data, adequate causal analysis, risk analysis, trending, comparison to metrics, includes leading and lagging indicators, dissemination of operational data, and measures both worker and subcontractor performance.
- 7.5.2.11. The SOC shall perform HSSE occurrence/event investigation ensuring that root cause analysis is performed, corrective actions address the systemic problems identified at the Nuclear Laboratories, and use a lessons learned program to implement improvements to the Nuclear Laboratories' operations.
- 7.5.2.12. The SOC shall provide oversight of contractual HSSE standards and requirements appropriate to subcontractors and other entities performing work at the Nuclear Laboratories.

7.5.3. Radiation Protection

7.5.3.1. The SOC shall institute a radiation protection program to ensure the health and safety of workers and the environment. This program shall be optimized to reflect regulatory requirements and the nature, scope, and scale of the operations conducted by the SOC.

7.5.3.2. The SOC shall consider in its site planning the cost implications of the radiation protection program.

7.5.4. Safeguards and Security and Counterintelligence and Counter Terrorism.

7.5.4.1. The SOC shall conduct a safeguards and security program that fosters an institutionalized security conscious culture that performs work securely and assigns unambiguous roles, responsibilities, authorities, and accountability while integrating excellence in safeguards and security into all SOC activities. The safeguards and security program includes, but may not be limited to: physical security; protection of the Nuclear Laboratories' property; classification, declassification and protection of information; cyber security; nuclear materials protection, control and accountability; and, personnel security including access control for Nuclear Laboratories staff and visitors.

7.5.4.2. The SOC shall support Canada's overarching security initiatives including safeguards and security technology deployment efforts as directed by AECL.

7.5.4.3. The SOC shall consider in its site planning the cost implications of the safeguards and security programs and optimize the programs to reflect regulatory requirements and the nature, scope, and scale of the operations conducted by the SOC.

7.5.4.4. The SOC shall maintain, train, test, equip and deploy a nuclear response force at the Nuclear Laboratories.

7.5.5. Emergency Operations

7.5.5.1. The SOC shall conduct an emergency management program to include: (1) emergency preparedness plans and procedures to support safety and an appropriate response in emergencies; (2) an occurrence notification and reporting system; (3) operation of an Emergency Operations Center and emergency response capabilities for local, provincial, and national missions; (4) a Radiological Assistance Program; and (4) support to the Nuclear Emergency Support Team and Accident Response Group in the areas of nuclear expertise and surety,

environment, safety and health, waste management, transportation and other areas requiring specialized planning, training, and responses to nuclear accidents or incidents.

7.5.5.2. The SOC shall have on site at all times a sufficient number of qualified staff for both normal operation and to respond to accident and emergency conditions.

7.5.5.3. As required to comply with regulatory and licence requirements, the SOC shall develop, implement and maintain a comprehensive set of emergency operating procedures for accidents, and guidelines for severe accident management.

7.6. *Quality Assurance (QA)*

7.6.1. The SOC's QA Program shall be operated as an integral, but visible, part of how the SOC conducts business, including applying a graded approach for clear HSSE priorities and CNSC licensing activities, and allocating resources to address programmatic and operational considerations.

7.6.2. The SOC shall ensure that cost reduction efforts and efficiency efforts are fully compatible with quality performance.

8. Integrated Planning, Business Operations, Legal Services, Public Affairs and Communications

8.1. *General*

8.1.1. The SOC shall demonstrate integrated management excellence in all operations and programs across the Nuclear Laboratories. This includes providing comprehensive long range planning and the use of business, legal and communication systems and strategies which maximize cost-effective and efficient performance in all program areas.

8.1.2. In carrying out its integrated planning, the SOC shall take into account policy goals and priorities of Canada as provided by AECL.

8.2. *Integrated Planning and Business Operations*

8.2.1. The SOC shall perform integrated long-range planning and manage and administer comprehensive enterprise business systems and internal controls for all business and administrative operations. This shall include integrating common systems of internal controls across the Nuclear Laboratories and implementing business processes that are risk-based, cross-functional, cost

effective, optimize and streamline operations, increase efficiency and enhance productivity.

8.2.2. Integrated Planning and Financial Management

8.2.2.1. The SOC shall conduct strategic and integrated long-range (multi-year) planning for the Nuclear Laboratories, its programs and facilities.

8.2.2.1.1. This shall include institutional planning necessary to ensure that the Nuclear Laboratories maintain a posture aimed at national technical and scientific needs and is dedicated to providing practical solutions in DWM.

8.2.2.2. The SOC shall maintain a financial management system that provides sound financial stewardship and public accountability.

8.2.2.3. The overall system shall: be suitable to collect, record, and report all financial activities; include a budgeting system for the formulation and execution of all resource requirements; include a disbursements system for employee payroll and supplier payments; and contain an effective internal control system for all expenditures.

8.2.3. Human Resources Management, Training and Succession Planning

8.2.3.1. In carrying out the work under this SOW, the SOC shall be responsible for the employment or contracting of all personnel engaged by the SOC in the work hereunder, and for ensuring the training of personnel.

8.2.3.2. The SOC shall maintain a human resources management system to attract, retain and develop a highly-qualified workforce and promote workforce diversity.

8.2.3.3. The SOC shall be responsible for all employment matters, including but not limited to: compensation, pension and benefit arrangements, collective bargaining agreement negotiations and signing all agreements.

8.2.3.4. The SOC shall conduct all of its activities in compliance with collective labour agreements governing the SOC staff.

8.2.3.5. The SOC shall develop and maintain HR planning documents that will highlight areas identified by AECL as important to Canada, will align with the Nuclear Laboratories' Primary Missions and sustain the long-term capabilities of the Nuclear Laboratories. The HR planning documents will be reviewed with AECL at least annually for alignment with the Primary Missions and priority areas. The HR planning

documents will include elements on recruitment, total compensation, collective bargaining, training and development and succession planning, and identify any adjustments needed to optimize the workforce necessary to fulfill the Primary Missions of the Nuclear Laboratories .

8.2.3.5.1. Implications of liabilities for new hires and/or staff reductions shall be presented by the SOC to AECL.

8.2.3.6. The SOC shall conduct comprehensive pre-employment screening as part of its human resources management system.

8.2.3.7. The SOC shall implement a training and qualification program including: general training and orientation; employee development; educational and professional advancement; facilities-specific training and qualification; and training related to succession planning.

8.2.3.8. All Nuclear Laboratories training and qualification programs shall emphasize the HSSE and safeguards and security aspects of job and position responsibilities.

8.2.3.9. The SOC's training and qualification program shall be an element of the Nuclear Laboratories integrated safety management process. The SOC shall ensure the continuing involvement by senior management in directing and evaluating the training and qualification program.

8.2.4. Purchasing and Supply Chain Management

8.2.4.1. The SOC shall deploy Good Industry Practices regarding supply chain management in its system planning and execution.

8.2.4.2. The SOC shall maintain an approved purchasing system to provide purchasing support and subcontract administration.

8.2.4.3. The SOC shall deploy Good Industry Practices regarding vendor management to ensure the compliant delivery of purchased products, goods and services at the requested quality standards.

8.2.5. Personal Property Management

8.2.5.1. The SOC shall have an approved management system for overall integrated planning, acquisition, maintenance, operation, control, accountability, utilization, and disposal of Canada-owned personal property.

8.2.6. Information Resources Management

- 8.2.6.1. The SOC shall maintain, and replace as required, the necessary information and operational systems for technical programs, organizational, business, legal and operations functions and for activities including general purpose programming, data collection, data processing, report generation, software, electronic and telephone communications, subject to the classified information requirements contained elsewhere in the SOC Agreement.
- 8.2.6.2. The SOC shall provide computer resource capacity and capability sufficient to support: (1) Nuclear Laboratories-wide information management requirements; and (2) Nuclear Laboratories-wide classified computing infrastructure.
- 8.2.6.3. The SOC shall, with AECL acceptance as part of the annual program of work or other relevant work plan, standardize non-scientific software and hardware programs/platforms within the Nuclear Laboratories for generating and storing electronic information.

8.2.7. Information Access, Audits and Assessments

- 8.2.7.1. The SOC shall establish an audit program which provides capabilities for both internal and subcontract audits and supports external audits, reviews, and appraisals.
- 8.2.7.2. The SOC shall provide any requested information and access to AECL and support any requested audit by AECL, as may be required for AECL to assess compliance with all responsibilities and obligations of the SOC set out in the SOC Agreement including any financial, operational, legal or any other aspect of conduct of the work described in this SOW.
- 8.2.7.3. The SOC shall retain all the records necessary for AECL to assess compliance with the SOC Agreement and to enable the SOC to maintain the management and operations of the Nuclear Laboratories beyond the Contractor Contract.

8.2.8. Self-Assessment Program

- 8.2.8.1. The SOC shall conduct a self-assessment program that will be used, in part, to assess: (1) the overall performance in operating and administrating the Nuclear Laboratories, (2) delivery of DWM work, and (3) performance related to science and technology programs.

8.2.9. Other Administrative Services

8.2.9.1. The SOC shall provide other administrative services, including: operating communications systems; managing and operating a records management system; and operating a system of records for individuals including those related to personnel radiation exposure information, medical, safety and health. Logistics support to AECL Site Office can be provided when approved by the Contracting Officer.

8.3. **Legal Affairs**

8.3.1. The SOC shall maintain a legal program to support SOC activities including, but not limited to, those related to: use of AECL patents, licenses, and other intellectual property rights; subcontracts; technology transfer; environmental compliance and protection; labour relations; and litigation and claims.

8.4. **Communications and Public Affairs**

8.4.1. In coordination with and approval of AECL, the SOC shall develop and conduct communications, information dissemination, public involvement, and public affairs programs including: internal and external communications; community involvement and outreach; interactions with the media, businesses, and the scientific and technical community; and liaison and consultation with local, provincial, Aboriginal, and federal levels of government.

8.4.2. For the DWM program in particular, the SOC shall establish a proactive community engagement and communication program to facilitate the Nuclear Laboratories' ability to move forward with any proposed initiatives and take the lead in securing regulatory acceptance, defining end states, and evaluating potential turnover of lands for repurposing or to communities for local economic development.

8.5. **Reports and Other Deliverables**

8.5.1. The SOC shall prepare, submit, disseminate, or otherwise publish the financial, schedule, scientific, or technical documentation including plans, performance reports, or other information and deliverables consistent with the needs of the various programmatic sponsors and other customers as required by the SOC Agreement, and/or as specifically required by AECL.

9. Glossary of Terms

SOC Agreement – Has the meaning specified in the RFRE to which this SOW is attached.

Acceptance - Acceptance by AECL does not relieve the SOC of its responsibility for defects or other failures to meet the requirements of the SOC agreement.

Decommissioning – Decommissioning as used in this document generally applies to facilities and includes all man-made structures and includes the following activities:

- regulatory analysis and preparation of documents as required;
- deactivation (utilize isolation, re-routing of the utilities, removal of hold up materials, etc.);
- decontamination (characterization, hazardous material abatement activities, removal of equipment);
- decommissioning; and
- disposition which also includes disposal, refurbishment, or demolition (demolishing man-made/components including building slabs and below-grade features within the immediate building footprint area) of structures/components.

Federal Interdepartmental Committee – A committee made up of Government of Canada officials who will be responsible for establishing the priorities for and scope of work to be performed by the SOC under the Federal Nuclear S&T program.

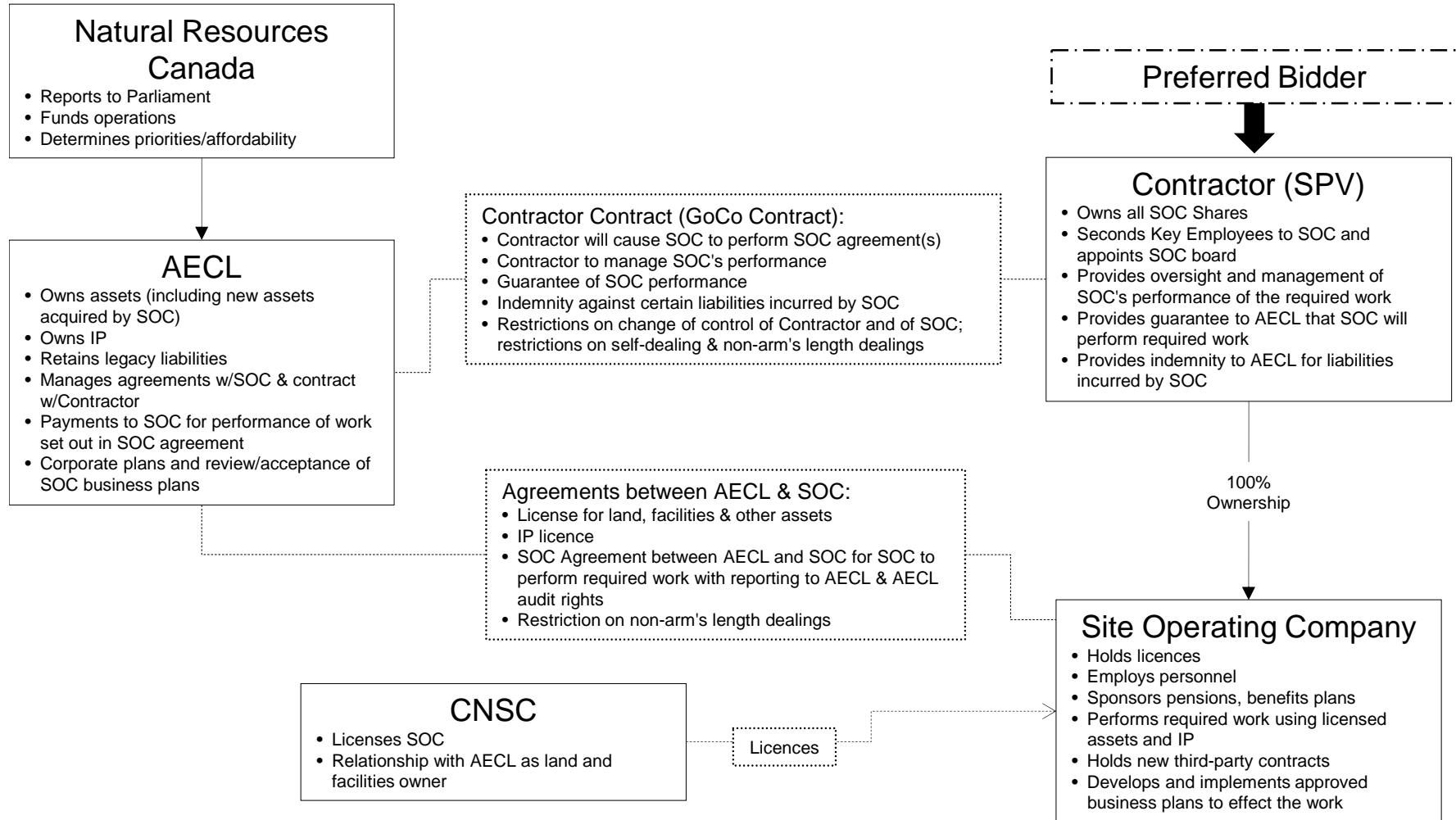
Historic Wastes – Radioactive waste for which the owner cannot reasonably be held responsible and for which the Government of Canada has accepted responsibility for its long-term management.

Legacy Wastes – Radioactive waste generated from past operations, shutdown buildings and infrastructure, and lands affected by past practices at AECL properties.

Site Operating Company – Has the meaning specified in the RFRE to which this SOW is attached

Waste Management – All aspects of characterization, removal, segregation, treatment, storage, and disposal of all types of radioactive waste including mixed, VLLW, LLW, ILW, HLW (used fuel), as defined by IAEA standards.

Annex B: Anticipated End – State Contracting Model



ANNEX C: BACKGROUND ON AECL

Table of Contents

1. PURPOSE.....	102
2. THE NUCLEAR INDUSTRY IN CANADA AND THE ROLE OF AECL.....	102
2.2. THE CANADIAN NUCLEAR SECTOR	102
2.3. LEGISLATIVE AND GOVERNANCE FRAMEWORK FOR AECL.....	103
2.4. ROLE OF AECL IN SUPPORTING THE INTERNATIONAL FRAMEWORK FOR NUCLEAR POWER.....	103
3. SITES	104
3.1. NATIONAL FOOTPRINT.....	104
3.2. THE CHALK RIVER LABORATORIES (CRL)	104
4. ACTIVITIES OVERVIEW	105
4.2. DECOMMISSIONING AND WASTE MANAGEMENT (DWM)	106
4.3. FEDERALLY FUNDED NUCLEAR S&T RESEARCH PROJECTS	109
4.4. SERVICES TO THIRD PARTIES	111
4.5. ACADEMIC & GLOBAL COLLABORATIONS:	113
4.6. INTELLECTUAL PROPERTY (IP) AND NON-COMPETES	114
5. FINANCIAL SUMMARY AND COST DRIVERS	115
5.1. NUCLEAR LABORATORIES ANNUAL EXPENDITURES BREAKDOWN.....	115
5.2. OVERVIEW OF NUCLEAR LABORATORIES LABOUR DRIVERS AND TRENDS.....	116
5.3. OVERVIEW OF AECL'S INFRASTRUCTURE REVITALIZATION CAPITAL PROJECTS	117
6. ORGANIZATION, SITE MANAGEMENT AND OPERATIONS	119
6.5. GENERAL MANAGEMENT AND CORPORATE SERVICES	120
6.6. NUCLEAR SAFETY OVERSIGHT AND SECURITY	122
6.7. SITE INFRASTRUCTURE AND SUPPORT	123
7. CORE CAPABILITIES TO SERVICE CUSTOMER PROJECT NEEDS	124
7.2. R&D ORGANIZATION S&T CAPABILITIES.....	124
7.3. WASTE MANAGEMENT OPERATIONS (WMO).....	125
7.4. ENGINEERING	126
7.5. FACILITIES	127
8. HUMAN RESOURCES CONSIDERATIONS	128
9. SUPPLIER CONSIDERATIONS	130

Exhibits

- A – AECL Nuclear Licenses
 - B – Legislative environment
 - C – History of AECL
 - D – Canadian Nuclear Power Related S&T Ecosystem
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1. Purpose

1.1. This Annex is provided to inform potential respondents of the context in which Atomic Energy of Canada Limited (AECL) operates, and the specific activities undertaken at the Nuclear Laboratories. It provides summary information on the costs of operating the Laboratories, its organizational structure and core capabilities and facilities. An overview of AECL's human resources and supply chain is also provided. This summary information provides a point of reference for potential respondents. It is directional and should not be considered as a basis for critical decision-making. Canada makes no representation or warranty as to the sufficiency, accuracy or completeness of the information contained in this Annex, and nothing contained therein is intended to relieve the Respondents from forming their own opinions and conclusions with respect to the matters that will be addressed in the Request for Proposals (RFP). More detailed information about the Nuclear Laboratories will be provided to Qualified Respondents over the course of the procurement process.

2. The Nuclear Industry in Canada and the Role of AECL

2.1. AECL's Nuclear Laboratories are a strategic element of Canada's nuclear industry. The Nuclear Laboratories represent Canada's main national science and technology (S&T) infrastructure that supports nuclear power-related research and materials science. AECL acts as an advisor to, and agent of, Canada for public policy purposes in areas such as nuclear research and development, legacy and historic nuclear wastes; business innovation and technology transfer; and the development of highly qualified people. The Nuclear Laboratories are principally centered at the Chalk River Laboratories (CRL).

2.2. *The Canadian Nuclear Sector*

2.2.1. The Canadian nuclear sector is involved in almost all aspects of the nuclear industry – from uranium mining and processing, to the construction and operation of nuclear power plants, to decommissioning and waste management. Indeed, Canada's nuclear power industry generates approximately \$5 billion¹ in revenues, and provides approximately 25,000 direct jobs². According to the Canadian Energy Research Institute, the Canadian nuclear industry represents 150 firms and \$1.2 billion a year in exports. Ontario and New Brunswick energy plans aim to maintain nuclear energy at approximately 50% and 35% of their electricity supply, respectively. More information on the Canadian nuclear industry is available on the Canadian Nuclear Association website.

¹ CME, 2012

² Canadian Nuclear Association

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

2.2.2. CANDU reactors developed by AECL have been commissioned in Ontario, Quebec, and New Brunswick as well as Argentina, Romania, South Korea, China, Pakistan and India.

2.3. ***Legislative and Governance Framework for AECL***

2.3.1. AECL is a Schedule III Part 1 Crown corporation under the *Financial Administration Act* and an Agent of Her Majesty in Right of Canada for all purposes. AECL was established pursuant to the *Atomic Energy Control Act* (which has been renamed the *Nuclear Energy Act*) and continued under the *Canada Business Corporations Act*. It reports to Parliament through its sole shareholder, the Minister of Natural Resources. AECL receives funding from Canada and is exempt from income taxes in Canada. AECL's liabilities are recognized as liabilities of the Crown.

2.3.2. The Board of Directors of AECL (the "AECL Board") is currently comprised of six directors. The AECL Board oversees the management of AECL and provides strategic direction and advice to AECL. The AECL Board, through its Chair, is accountable to the Minister of Natural Resources.

2.3.3. The Canadian Nuclear Safety Commission (CNSC), in its capacity as the independent nuclear regulator for Canada, has issued several nuclear licences (collectively, the "Nuclear Licences") to AECL which permit AECL to carry out its current operations. Exhibit A attached hereto lists such Nuclear Licences. The overall legislative environment for nuclear activities in Canada and the role AECL plays is summarized in Exhibit B.

2.4. ***Role of AECL in Supporting the International Framework for Nuclear Power***

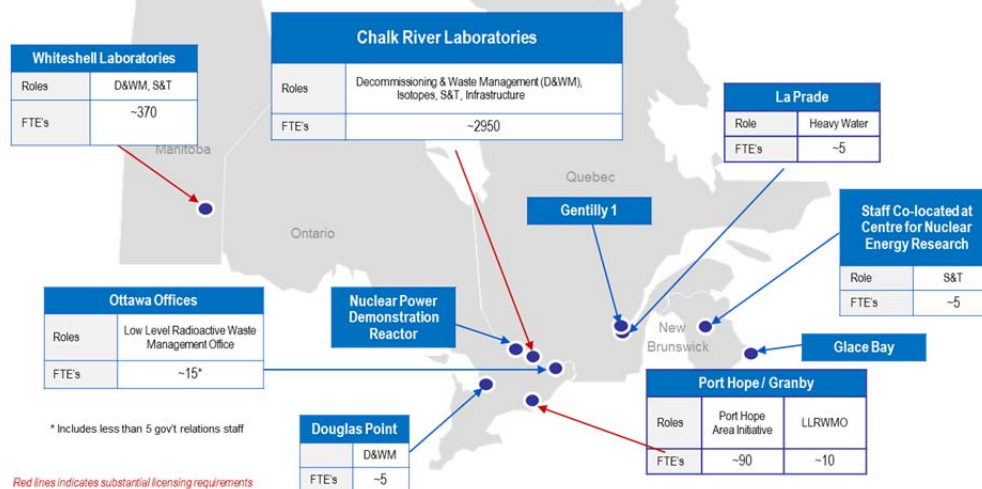
2.4.1. AECL is involved in most aspects of the Canadian nuclear industry that support Canada's compliance with the International Convention on Nuclear Safety. This includes providing international findings and operational experience data to the CNSC, playing a leadership role in the industry research programs on advancing the safety of the nuclear fleet, and participating in collaborative efforts with international bodies, AECL is also the custodian of many facilities that provide the requisite capabilities necessary to meet the safety obligations of the Convention.

3. Sites

3.1. **National Footprint**

3.1.1. AECL's activities are managed across many sites. AECL has operations or offices in the following locations: Deep River, Ontario; Port Hope, Ontario; Ottawa, Ontario; Douglas Point, Ontario; Rolphton, Ontario; Oakville, Ontario; Pinawa, Manitoba; Glace Bay, Nova Scotia; Fredericton, New Brunswick; La Prade, Quebec and Bécancour, Quebec. The Fredericton operations are in support of the Centre for Nuclear Energy Research. Approximate full time equivalents (FTEs) at each site are shown below.

AECL Nuclear Laboratories' National Footprint (with approx # of FTEs)



3.1.2. AECL does not maintain any permanent FTEs at NPD, Gentilly 1 or Glace Bay.

3.2. **The Chalk River Laboratories (CRL)**

3.2.1. The CRL are Canada's largest S&T site, spread over 3,850 hectares. CRL houses the National Research Universal (NRU) reactor, another smaller experimental reactor, a series of Nuclear Laboratories and unique facilities, including hot cells. The CRL have many of the attributes of a municipality, and are self-supporting with respect to municipal services. This includes: sewer, site heating (steam), wastewater treatment, and security and fire services, which are specifically organized and trained for a radioactive environment. CRL offers the largest suite of Nuclear Laboratories within Canada, and has globally unique S&T infrastructure related to the heavy water CANDU reactor technology.

3.2.2. CRL is fully operational with approximately 2850 employees. The built-up portion of the site is approximately 50 hectares and houses 157 permanent buildings.

Sixty of these permanent buildings are considered principal buildings; an additional 11 are in the process of decommissioning or are in a safe shutdown state. In fall 2011, the CNSC relicensed the CRL site and all of its activities to 2016.

4. Activities Overview

4.1. AECL serves multiple mandates from a common capability base. Its activities can be categorized into four areas:

- (a) Supporting and/or delivering radioactive **Decommissioning and Waste Management (DWM)** programs, as requested by Canada, with a view to reducing Canada's overall legacy and historic nuclear waste liability as efficiently and cost effectively as possible.

Approximately 800 FTEs;

- (b) Performing work in nuclear **Science and Technology (S&T)**, as directed by Canada, to meet federal responsibilities and objectives. This includes providing services and advice as requested by Canada and undertaking research and development.

Approximately 225 FTEs;

- (c) Providing **Third Parties Services on a commercial basis**. This includes nuclear S&T in support of the existing CANDU fleet, nuclear material science, testing services and nuclear products. It also includes the production of medical isotopes and the management under contract of certain nuclear wastes generated by other organizations in Canada.

Approximately 225 FTEs;

- (d) Maintaining infrastructure, capabilities and resources essential to support the roles of AECL's Nuclear Laboratories. A summary of the total AECL costs and the cost drivers for maintaining infrastructure is provided in Section 5. A description of AECL's organization and its delivery of the site support and infrastructure activities is provided in Section 6.

Approximately 2200 FTEs (*including capital projects*).

4.2. **Decommissioning and Waste Management (DWM)**

4.2.1. AECL, on behalf of Canada, is responsible for implementing the waste and decommissioning work and for ensuring all regulatory requirements are fully met both at AECL sites and other sites for which Canada has responsibility including legacy and historic sites in Manitoba, Ontario and Quebec. Canada's radioactive liabilities include nuclear facilities and other infrastructure and a wide variety of buried and stored waste and contaminated soils. Waste includes both low and high level waste. AECL is advancing its DWM effort for effective and efficient elimination of nuclear liabilities through four programs whose cost and FTE characteristics are shown below:

Decommissioning and Waste Management Services			
Current year estimate	Approx Cost (\$M)	Non Labour Percentage of Cost	Approx FTEs (rounded)
NLLP			
Chalk River Laboratories DWM	90	65%	300
Whiteshell	55	40%	350
Other DWM Sites	10	80%	15
PHAI	35	65%	110
LLRWMO	5	45%	20
Isotope Legacy Program (ISLP)	15	90%	5
Total DWM Projects	210	60%	800

Note: All numbers rounded estimates

4.2.2. **Nuclear Legacy Liabilities Program (NLLP)**

4.2.2.1. In recognition of Canada's legal obligation to manage legacy radioactive waste, in 2006, Canada initiated the NLLP - a 70-year strategy to address its radioactive waste and decommissioning liabilities, at AECL sites. Under this program, AECL, on behalf of Canada, is responsible for implementing the waste and decommissioning work and for ensuring all regulatory requirements are fully met. This program includes the repatriation of waste in support of non-proliferation agreements which is expected to be materially completed by 2016.

4.2.2.2. The estimated liabilities being addressed by the NLLP are valued at \$5.7B net present value (NPV), based on AECL's 2012 Annual Financial Report. The following AECL sites are included in the NLLP:

1. Chalk River Laboratories in Ontario, with about 70% of the liabilities;
2. Whiteshell Laboratories (WL) and the nearby Underground Research Laboratory in Manitoba, with about 20% of the liabilities;

3. Three shutdown prototype reactors, with about 10% of the liabilities:

- Nuclear Power Demonstration (NPD) in Rolphton;
- Douglas Point reactor in Kincardine, Ontario; and
- Gentilly-1 reactor in Bécancour, Quebec.

4.2.2.3. Other AECL buildings and properties that are part of the NLLP are the shutdown heavy water plant sites at La Prade Quebec; and Glace Bay, Nova Scotia. The work at Glace Bay will be fully wrapped up in FY 13/14. More information on the CRL NLLP liabilities can be found in the Comprehensive Preliminary Decommissioning Plan.

4.2.2.4. The Whiteshell Laboratories (WL) occupy 4400 hectares of land and houses 8 operating license listed facilities (including shielded facilities, waste management areas and a research and development (R&D) facility), one shutdown license listed facility (WR-1 reactor) and a number of non-nuclear facilities. The WL have been in decommissioning mode since the late 1990s. The CNSC relicensed the WL Site under a 10-year Nuclear Research and Test Facility Establishment Decommissioning License to 2018. There are approximately 360 employees at this facility. Certain research facilities such as the RD-14 thermal hydraulics facility and the Large Scale Vented Combustion Facility (LSVCF) continue to service the CANDU fleet. The Waste Management Area and inactive landfill are located approximately 3 km and 4 km respectively from the main campus on the WL site.

4.2.2.5. Located close to the Whiteshell site is the Underground Research Laboratory (URL) which once conducted studies on the feasibility of safe disposal of nuclear fuel waste in a stable, low-permeability rock mass. The mine shaft was sealed in 2012 and planning for the complete facility decommissioning in the near future is complete.

4.2.3. Port Hope Area Initiative (PHAI)

4.2.3.1. The PHAI comprises two similar but distinct projects: the Port Hope Project and the Port Granby Project. Both are being completed in fulfillment of a legal agreement between Canada and the municipalities of Port Hope and Clarington, and will result in the consolidation of 1.7 million cubic metres (m³) of low-level radioactive waste (LLRW), (mostly contaminated soil) in two engineered above-ground mounds.

4.2.3.2. Both projects are fully engineered and have been issued environmental approvals and licences from the CNSC. Federal funding authorization totalling \$1.28 billion was granted in 2012 January. Construction of infrastructure is underway. All major contracts are issued and managed by Public Works and Government Services Canada under a Memorandum of Understanding with AECL and Natural Resources Canada (NRCan).

4.2.3.3. The Port Hope Project involves the cleanup of 1.2 million m³ of historic LLRW arising from the operations of Eldorado Nuclear Limited from 1932 – 1955. Some 17 major sites and ~ 500 small-scale sites are involved in this urban remediation project.

4.2.3.4. The Port Granby Project, in neighbouring Clarington, entails the cleanup of 450,000 m³ of material arising from the Eldorado operation from 1956-1988. Unlike its sister project, all of the waste is one licensed location.

4.2.4. **Low Level Radioactive Waste Management Office (LLRWMO)**

4.2.4.1. The Low-Level Radioactive Waste Management Office (LLRWMO) carries out cleanup and long term management of LLRW on behalf of the federal government; as mandated in the 1990 Memorandum of Understanding (MOU) between NRCan and AECL. The mandate of the LLRWMO is to:

- resolve historic LLRW issues that are a federal responsibility;
- provide technical advice to the Government of Canada on the latest national and international developments related to the management of historic LLRW;
- establish LLRW temporary and permanent management facilities;
- analyze issues associated with specific types and occurrences of LLRW; and
- address public information needs concerning LLRW.

4.2.4.2. The LLRWMO manages historic LLRW located at various project sites across Canada. The LLRWMO performs environmental remediation at sites contaminated with historic LLRW and constructs interim waste management facilities for this waste, pending long-term management solutions.

4.2.5. **Isotope Legacy Program (ISLP)**

4.2.5.1. DWM also includes the Isotope Legacy Program (ISLP) for decommissioning of the Dedicated Isotope Facility.

4.3. **Federally Funded Nuclear S&T Research Projects**

4.3.1. AECL nuclear S&T responds to the specific needs and features of the Canadian nuclear regulatory, safety, security and safeguards environment. It supports the technology, system and innovation needs of the sector including the commercialization of concepts into the marketplace.

4.3.2. Over the past 60 years, nuclear innovations at AECL have resulted in transformational technologies in areas such as energy production and medical imaging and cancer treatment. These innovations have produced new methods and technologies such as, improved safety codes, food irradiation apparatuses and teaching reactors. AECL's Nuclear Laboratories house research facilities and expertise for conducting nuclear energy and other nuclear S&T activities, such as supporting the development of advanced nuclear reactors and fuel-cycle technologies, material science, biological research and dosimetry. A history of AECL is provided in Exhibit C.

4.3.3. AECL provides the data, tools and measurements that provide the technical basis for the safe operation of nuclear facilities and reactors in Canada, including tools to support regulatory risk assessment and emergency response. As an example, in response to events at Fukushima, AECL has dedicated resources to improve understanding of, and response to, severe accidents. Agencies supported include CNSC; Canada Border Services Agency; Department of Foreign Affairs, Trade and Development; National Research Council; Health Canada; RCMP; Department of National Defence; and Public Safety.

4.3.4. AECL also develops expertise used to represent Canada in international fora on nuclear safety and radiological issues, and to advise and support the public sector on topics ranging from safe regulation of facilities, to methods for detection of nuclear materials. Through a collaborative annual process with industry and academia, AECL develops an agenda of emerging research needs based on its understanding of international cooperative agendas and evolving regulatory challenges. S&T activities conducted with the support of federal funding include:

- (a) **Nuclear Non-Proliferation and Counterterrorism** R&D supports collaborations with Canadian government agencies, the private sector and international organizations to reduce the threat of nuclear proliferation by providing innovation to prevent and detect illegal transport of nuclear materials.
- (b) **Nuclear Safety Technology** develops methods to enable the safe execution of nuclear activities in Canada based on sound scientific knowledge and ensures that the regulator has access to this knowledge. It provides data, tools and measurements to support the safe regulation

of nuclear facilities, and to validate and develop codes needed to perform nuclear safety analysis and define safety margins.

- (c) **Generation IV Technologies** supports and fulfills Canada's commitment to the Generation IV International Forum, with the goal of developing the design concept for a pressure tube supercritical water-cooled reactor (SCWR), a more efficient design than current Generation II and III reactors.
- (d) **Tritium and Fusion Technologies** maintains expertise in the management and application of tritium technology, including its application by the international fusion community. AECL's tritium technology, developed for the safe management of tritium in nuclear fission plants, is applicable to other industrial applications.
- (e) **Hydrogen Technologies** utilizes AECL's expertise in heavy water and hydrogen technology and its patented wet-proofed catalyst technology for applications to electrolysis (electrolytic cells) and fuel cells. It also provides the foundation for the production and application of hydrogen as an energy source and industrial feedstock.
- (f) **Sustainable Energy Technologies** focuses on advanced inspection technologies to ensure the safe operation of nuclear energy systems, and on the development of advanced nuclear fuels and fuel cycles for improved resource utilization, performance and proliferation resistance.
- (g) **Materials Science and Chemistry** develops innovative applications of nuclear materials and chemistry technologies for industrial applications, and supports the development and operation of advanced energy systems.
- (h) **Radiation Biology and Health** seeks to reduce the probability of radiation-induced health effects (including cancer) by studying the effects of radiation on human health, which are conducted in collaboration with universities and other research institutions, to inform regulation on the safe levels of radiation exposure.
- (i) **Environmental Technologies** conducts environmental research activities for scientific, technical and compliance purposes that secure and demonstrate the environmental benefits of nuclear technology.

4.3.5. The direct funded R&D projects deploy approximately 225 FTEs.

4.4. **Services to Third Parties**

4.4.1. **Commercial S&T**

4.4.1.1. The Nuclear Laboratories provide scientific and technical services and expertise for the safe, secure and reliable operation of the existing CANDU reactor fleet. Through various contractual agreements, the Laboratories support CANDU owners and Candu Energy, in both Canada and abroad. The activities in this area include providing the scientific basis for reactor safety codes, or illustrating that components within the reactor will continue to operate as designed. AECL's commercial activities provide industry access to the AECL experts, facilities and technologies they require and ensure a strong collaboration continues between AECL and the nuclear industry, supporting AECL's enabling of business innovation and technology transfer.

- (a) **Candu Energy & Other Industry Support** is the business undertaken with Candu Energy Inc. including its support to Canadian utilities. Candu Energy Inc. is a wholly-owned subsidiary of SNC Lavalin and was created as a result of Phase 1 of AECL restructuring. AECL is a strategic supplier to Candu Energy as it undertakes major nuclear-related projects, provides services to utilities, and seeks new business opportunities throughout the world. AECL's Nuclear Laboratories provide services to Candu Energy based on an Intercompany Services Agreement.
- (b) **CANDU Owners Group (COG)** is a private, not-for-profit organization dedicated to providing programs for cooperation, mutual assistance and exchange of information for the successful support, development, operation, maintenance and economics of CANDU-based reactor technology. As a member, AECL contributes financial resources to support COG programs benefitting all of its members, while as a supplier, AECL provides commercial services to COG. COG membership and participation in the COG R&D program provides important information to AECL that enables the safe and compliant operation of its many licensed nuclear facilities.

4.4.1.2. Products and services delivered for commercial S&T customers in the past have included:

- (a) S&T services that enabled the Life Extension of Pickering Nuclear Generating Station
 - AECL has developed understanding of the behaviour of pressure tubes which is advanced by COG to allow an additional 5 years of operation

(b) Enabling refurbishment of CANDU fleet

- AECL developed recommendations for manufacturing that will be implemented for Enhanced CANDU-6 and Darlington refurbishment to cost effectively extend the lifetime of the reactors

(c) Testing that enabled increase in power output

- AECL conducted thermal hydraulics testing and analysis that resulted in a ~1% increase in total power generation for the Ontario units

(d) S&T to support regulation, enabling the relicensing of Canada's nuclear fleet

- Experiments to address Generic Action Items (GAIs) stemming from the CNSC's report on nuclear safety, such as Molten Fuel Moderator Interaction (MFMI)

(e) Supporting strategically important relationship with China

- Enabled sales potential in China due to research into use of thorium and waste fuel

(f) Introduced products

- The intellectual property for several of the products listed below has been sold or licensed; however, these remain good examples of the type of product development that has come out of the Nuclear Laboratories:
 - Passive autocatalytic recombiners (PARs), now seeing new prominence post-Fukushima in many types of reactors
 - Emergency Core Cooling (ECC) Strainers, currently installed in all CANDU utilities as well as some US and international utilities as part of the safety system. These strainers and their testing have been accepted by the foreign regulators
 - Specialized Pump Seals and Elastomer Seals for CANDU and NRU reactors as well as BWR reactors in the U.S., European and Asian markets
 - Refurbishment tooling to assist in extending reactor life
 - Non-destructive examination technologies for reactor components
 - Valve maintenance tooling for Canadian utilities
 - Electric-cable ageing assessment technology for Canadian utilities

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

4.4.2. Production of medical isotopes

4.4.2.1. Isotope production, under commercial contracts with MDS Nordion and Best Therapeutics, constitutes a major non-research-based activity at the Laboratories and depends heavily on infrastructure and expertise (e.g., the NRU reactor, the processing facility and chemistry expertise). Isotope production includes molybdenum, iodine, cobalt and others. Canada intends to cease molybdenum-99 isotope production from the NRU by 2016.

4.4.3. Third Party Waste Services

4.4.3.1. In addition to Canada's legacy waste, the Nuclear Laboratories also manage a small amount of nuclear waste generated by hospitals, universities and medical isotope producers on a contractual basis.

4.4.4. Heavy Water Management

4.4.4.1. AECL sells and leases portions of its heavy water inventory to both reactor and non-reactor clients in the Canadian and international heavy water markets, subject to existing contractual obligations. AECL stores and manages its heavy water inventory at AECL's La Prade site.

4.4.4.2. The delivery of all commercial services by AECL engages approximately 225 FTEs.

4.5. Academic & Global Collaborations:

4.5.1. AECL has collaborations with 27 academic universities in 8 provinces across Canada and 50 active collaborations globally.

Academic & Global Collaborations

- 27 universities in 8 provinces in Canada
- 50 active collaborations in 12 countries outside of Canada



4.5.2. Over 60% of the S&T project activities undertaken at the Nuclear Laboratories involve collaborations.

Breakdown of Collaborations by Sector (as % of Total \$ cost of AECL efforts)

Sector	Breakdown of Sub-Activity Collaborations
Academic – Canada	60%
Government – Federal Departments	12%
International	11%
CANDU Industry	10%
Non-CANDU Industry	6%

4.5.3. A summary of the collaborative environment in the overall Canadian nuclear power S&T ecosystem is provided in Exhibit D.

4.6. *Intellectual Property (IP) and Non-Competes*

4.6.1. AECL has either ownership or rights to intellectual property that it has developed over the course of its history. However, the use of AECL's IP is subject to various obligations (including non-compete and confidentiality requirements) to third-parties.

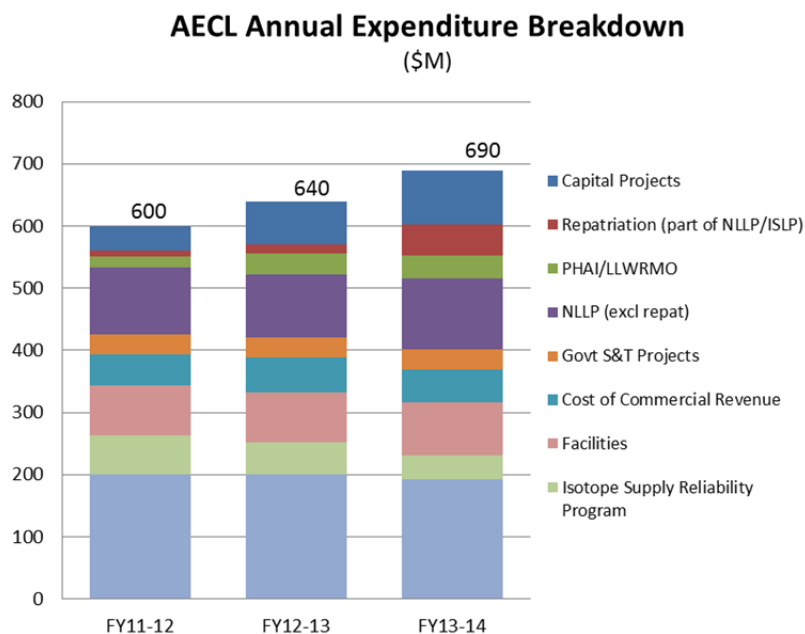
4.6.2. Of note in this regard is the Intellectual Property Licence Agreement, which grants CANDU Energy a perpetual licence to use AECL's IP relating to the CANDU business. The licence is exclusive in the power reactor market. Subject to non-compete obligations, AECL's Nuclear Laboratories retain rights to continue to operate and provide services within a limited field of use, including: i) research, development and testing services to Canada and to the CANDU Owners Group, and ii) all services with respect to its own nuclear research facilities.

4.6.3. Brief descriptions of the agreements reached with SNC-Lavalin Group Inc. (the Parent of CANDU Energy Inc.), including the Intellectual Property License Agreement can be found at: <http://www.nrcan.gc.ca/media-room/news-release/2011/57a/1470>.

5. Financial Summary and Cost Drivers

5.1. Nuclear Laboratories Annual Expenditures Breakdown

5.1.1. The current budgeted expenditure for the Nuclear Laboratories is estimated to be \$690M. Among the various sources of funding, commercial revenues have historically averaged approximately \$110M annually. A summary of the Nuclear Laboratories' annual expenditures is provided below. While most cost areas have been stable, cost growth is occurring in PHAI, the Project New Lease (PNL) capital program, and NLLP waste repatriation areas.



5.1.2. The next two sections summarize the implications of regulatory requirements and CRL's ageing infrastructure on site costs and capital program requirements.

5.2. Overview of Nuclear Laboratories Labour Drivers and Trends

5.2.1. There has been a decline in S&T FTEs as hiring has not matched attrition. FTEs required to support DWM have increased as NLLP projects have ramped up. Another area of growth for FTE requirements has been PHAI. Incremental compliance operational requirements of the Isotope Reliability Program have also led to additional FTE needs since 2006.

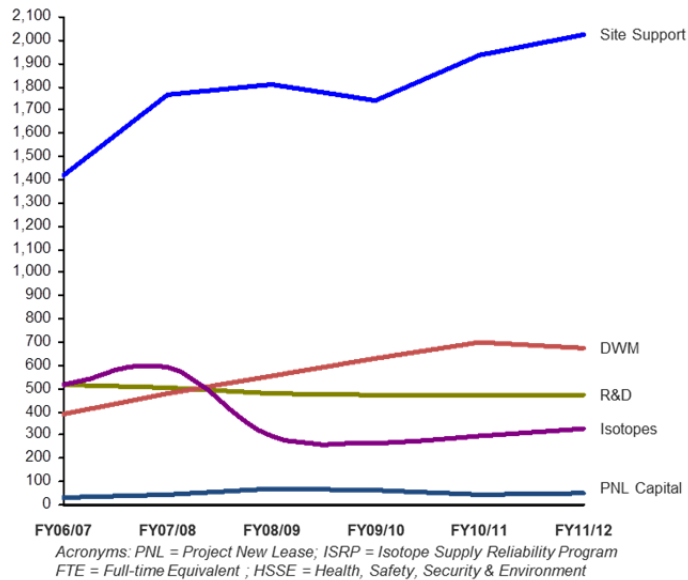
5.2.2. FTEs in support of PNL & capital projects support CRL's aging infrastructure. The capital projects in PNL were initiated due to the historic lack of recapitalization programs to sustain infrastructure requirements at a nuclear facility.

5.2.3. The growth of on-site support activities is driven by compliance requirements. Since 2006-07, Health, Safety, Security & Environment (HSSE) requirements have increased on-site support by approximately 300 FTEs. There is a high burden of compliance requirements from the operation of a nuclear site. Substantial effort is driven by onsite fire, security, safety & environmental protection, nuclear safety and oversight, HSSE, nuclear materials management, waste management and other needs.

5.2.4. **Health, Safety, Security & Environment:** Sustaining HSSE core programs ensures compliance and involves a high level of engagement with the regulator. The CNSC oversees safety on a broad basis of 14 Safety and Control areas. The compliance criteria are based on quality and technical standards. CNSC regulations impact on a wide range of activities conducted at the nuclear laboratories.

Change in FTE's by priority area

Based on performing labour tables from FY06/07 to FY11/12, FY11/12 YTD scaled to year end



CNSC Regulated HSSE Areas	
<p>Management System</p> <p>Operating Performance</p> <p>Radiation Protection</p> <p>Emergency Management and Fire Protection</p> <p>Safeguards</p> <p>Human Performance Management</p> <p>Physical Design</p> <p>Conventional Health and Safety</p> <p>Waste Management</p> <p>Packaging and Transport</p> <p>Safety Analysis</p> <p>Fitness for Service</p> <p>Environmental Protection</p> <p>Security</p>	<p>The CNSC regulatory requirements impact on the practices and costs of site operations</p>

5.3. Overview of AECL's Infrastructure Revitalization Capital Projects

5.3.1. Infrastructure Revitalization is a program of improvements to replace and upgrade aged infrastructure, including municipal infrastructure, buildings and facilities, thereby facilitating AECL in delivering on its intended activities. AECL's capital programs represent a significant portion of expenditures in addition to the fixed costs, and will continue to be needed in the coming years. Infrastructure Revitalization currently deploys approximately 180 FTEs.

Approximate Cost (\$M)	FY11-12	FY12-13	FY13-14
Capital Projects	40	70	90

5.3.2. Capital spending is currently split across two separate programs which were initiated in different years with different purposes, and focus on separate facilities:

- i. PNL
- ii. Isotope Supply Reliability Program (ISRP)

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

Driving Requirement	PNL	ISRP
Ageing Infrastructure Renewal	✓	✓
Regulatory/Licensing Conditions	✓	✓
HSSE	✓	
Science & Technology Services Capability	✓	

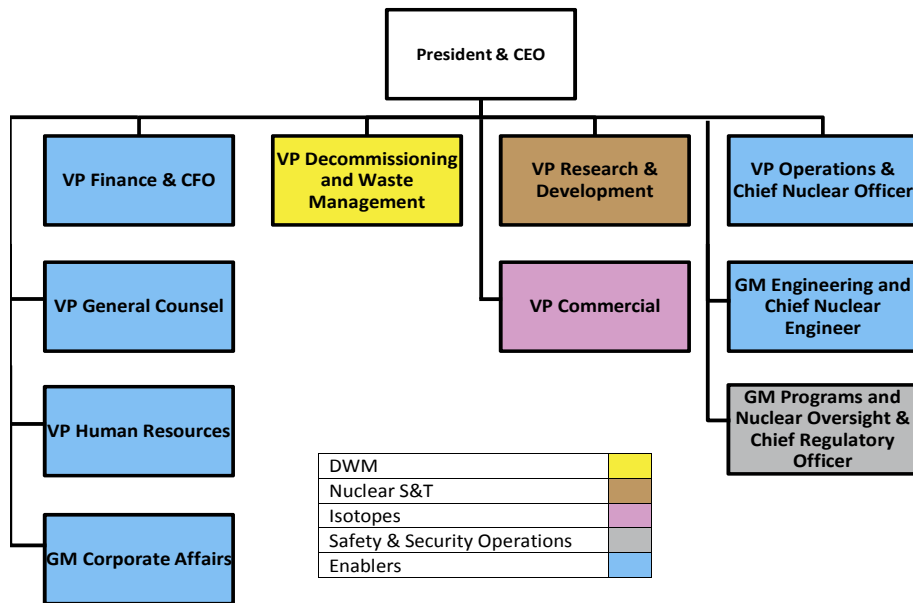
5.3.3. The primary drivers of capital programs are:

- i. Ageing infrastructure renewal
- ii. Regulatory / Licensing Conditions
- iii. HSSE

5.3.4. AECL is engaged in reviewing priorities around these capital projects and seeking mechanisms to minimize the annual cash burden and ensuring an appropriate infrastructure re-capitalization in future. For more information on the state of AECL's infrastructure, please refer to the Auditor General's Special Examination Report.

6. Organization, Site Management and Operations

6.1. The organization of AECL, as it was structured in fiscal year 2013, is shown below with the approximate number of staff in each organizational unit summarized in the table.

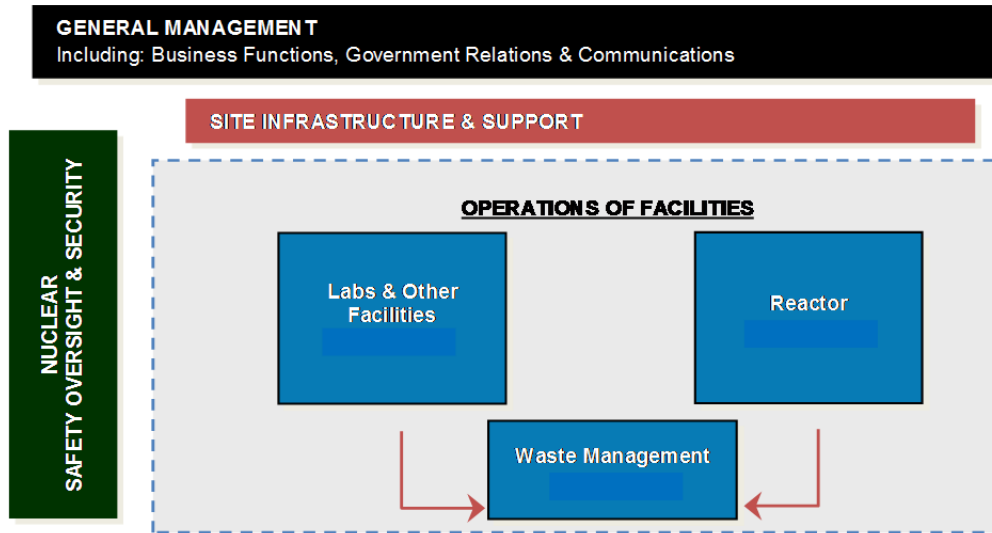


AECL's Employees by Organizational Unit		
Organizational Unit	Number of FTEs*	Percentage
General Management and Corporate Services	350	10%
Programs and Nuclear Oversight	450	13%
Site Support and Operations	1,200	35%
Research and Development	600	17%
Decommissioning and Waste Management	650	19%
Engineering	200	6%
Total FTEs*	3,450	100%

* FTEs include contracted personnel

6.2. The organization at the Nuclear Laboratories is highly matrixed in order to assemble the multidisciplinary teams required to deliver on the market facing or specific funded project aspects of the DWM, S&T and Third Party Services activities described earlier in section 4. An additional focus on the core capabilities AECL has in R&D, Waste Management Operations (within DWM), and Engineering is provided in Section 7.

6.3. AECL incurs various costs to manage and maintain the operational readiness and regulatory compliance of its nuclear sites. AECL owns or leases all of the real property, facilities and other assets required to conduct its business. This section provides a description of the site management and operations activities including General Management and Corporate Services, Programs and Nuclear Oversight, and Site Support and Operations as conceptually illustrated below reflecting the integrative nature of sustaining a nuclear site.



6.4. The largely fixed costs include such things as general management, specialized security and fire protection, and wastewater treatment, and site infrastructure (e.g., roads, administration). The site management and operations activities have been approximately \$200M per year (exclusive of facilities) with a cost breakdown as illustrated below. Facilities are described further in Section 7.5.

Site Management and Operations	Approx Cost (\$M)	FTEs
General Management and Corporate Services	60	350
Nuclear Safety Oversight and Security	50	450
Site Infrastructure and Support	90	1,200
Total	200	2,000

6.5. **General Management and Corporate Services**

6.5.1. General management and internal services includes business operations, organizational planning, leadership development, business services, finance, IT and site and community affairs.

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
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Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

General Management and Corporate Services	Approx Cost (\$M)	Non Labour	
		Percentage of Cost	FTEs
Management and Oversight*	30	30%	100
Finance and Business Services	5	30%	35
IT	15	40%	80
HR	5	20%	60
Supply Chain	5	20%	75
Total	60	31%	350

* Includes Management Overheads for delivered programs and 3rd Party Services

6.5.2. Together, these activities conduct the day-to-day business; compliance with applicable policies, regulations and legislation; promotion of a culture of safety and improved performance; and the required interface, as a Crown corporation, with the Government of Canada.

6.5.2.1. **Management and Oversight** provides senior management oversight to ensure program alignment, planning and execution. This includes the functional activities of business planning and maintenance of the AECL Management System. Other management activities include: (a) **Communications** and information support for external and internal stakeholders including the interface between AECL management, senior elected officials and Government of Canada departments and agencies; (b) **Business Development** support for marketing, sales and contracting services to develop and secure business opportunities for AECL with third-party and Government of Canada customers and partners; (c) **Strategic Initiatives** to oversee delivery AECL's improvement agenda initiatives; and (d) **Legal** counsel to manage associated legal risks and provide intellectual property management support.

6.5.2.2. **Financial Management** provides financial operations, accounting and reporting services, and business support and analysis to support financial management of AECL activities.

6.5.2.3. **Information Technology** maintains the computing infrastructure, network applications, and desktop support services, and maintains AECL's information assets by improving document management practices, including preparation, archival and integrated repository.

6.5.2.4. **Human Resources Management** provides support functions and processes to manage human resources in accordance with collective agreements, policies and legislation. Human Resources also provides supporting programs to promote a safe work environment and healthy workforce.

6.5.2.5. **Supply Chain Management** activities include a fair and equitable purchasing process, ensuring value for money, minimizing risk to AECL, ensuring compliance with federal and provincial laws, and meeting AECL fiduciary guidelines. It

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

also includes warehousing and distribution services to meet the requirements for the handling, storage, preservation, packaging and delivery of materials for nuclear power plants.

6.6. ***Nuclear Safety Oversight and Security***

6.6.1. Program and Nuclear Operations (PNO) includes Nuclear Lab security, fire services, nuclear materials management, radiation and environment protection, the nuclear programs office, the chief regulatory office, the PNO general manager's office, conventional safety activities, and operations at La Prade.

Nuclear Safety Oversight and Security	Approx Cost (\$M)	Non Labour	
		Percentage of Cost	FTEs
PNO (excluding Fire & Security)	31	36%	275
Fire & Security	18	13%	175
Total	50	27%	450

6.6.2. Some specific PNO activities include:

6.6.2.1. **Performance Improvement and Nuclear Oversight (PINO)** consists of four activities - quality assurance, nuclear oversight, quality control and human performance. PINO is responsible for providing oversight and assessing if Nuclear Lab services and facilities meet safety, quality and performance standards.

6.6.2.2. **Nuclear Security and Response** (including fire and security) ensures that appropriate resources are in place to prepare, respond to and mitigate emergency events (including fire) and provides technical support as required to other nuclear sites and local, regional, provincial and national communities.

6.6.2.3. **Nuclear Materials Handling** ensures that nuclear materials are managed and transported safely, at no risk to nuclear workers or the Canadian public. Nuclear materials handling is one of the core capabilities of AECL described in section 7.

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

6.7. **Site Infrastructure and Support**

6.7.1. Site Infrastructure and Support encompasses all of the shared services required to support operations and general upkeep of the Nuclear Lab. This includes: **Provision of Real Property and Municipal Facilities** assets including site infrastructure, sewage systems, the powerhouse, electrical distribution systems; **Facility Development** services to support the success of the organization such as the provision of maintenance, management of facility engineering changes and implementation of management processes; and site services, laundry, training and administration related to general overhead operations, and other general activities.

Site Infrastructure and Support	Approx Cost (\$M)	Non Labour	
		Percentage of Cost	FTEs*
Property Management Services	19	39%	100
Energy and Utilities	13	93%	10
Site Maint. Eng, Manuf, Transport	57	29%	380
Other Use of Ops FTEs (<i>Facilities, PNL, ISRP</i>)	--		710
Total	90	40%	1200

6.7.2. Large cost areas include:

6.7.2.1. **Energy and Utilities** (Oil and Electricity) - Electricity (Class IV) is supplied to the site by Ontario Hydro and is measured by the electricity meters installed within each building. Oil is used at the Powerhouse to make steam for heating and process needs at the Laboratories, and propane is used to support the S&T Biological Research Facility (BRF) and several other buildings. Within the Laboratories, steam meters are installed in each building.

6.7.2.2. **Site maintenance** includes site support services, maintenance programs and standards, site technical support, nuclear services maintenance, facilities and general building maintenance, electrical maintenance and mechanical services.

6.7.2.3. **Manufacturing** includes manufacturing services, fabrication services, machine shop services, site support services and welding services.

6.7.2.4. **Transportation** includes transportation of heavy equipment, maintenance, fleet operations, vehicle leases, and hoisting services.

6.7.2.5. **Engineering** is described further in Section 7.4.

7. Core Capabilities to Service Customer Project Needs

7.1. AECL has several core capabilities which it is managing as Centres of Excellence (COEs). The COEs represent the blend of people, tools and technologies that are distinctive to AECL and in Canada. Strategically managing the capabilities supports AECL's ability to continually meet the needs of federal departments, funded projects, customers and other stakeholders, and develop competitive capabilities that can be leveraged for future applications of the Nuclear Laboratories capabilities. These distinct capabilities are described as they apply to R&D, Waste Management Operations, Engineering, and Facilities.

7.2. *R&D Organization S&T Capabilities*

7.2.1. While S&T is conducted in many parts of the Nuclear Laboratories, the R&D branch represents the major S&T capability that support the primary core capabilities summarized below (facilities are described further in Section 7.5):

Area/ Core Capability	Description
Nuclear Safety, Security and Risk Management	This capability captures the breadth of skills, facilities and "know how" that enable reactor operators to understand and mitigate risks associated with nuclear activities in Canada. The vast majority of expertise in CANDU reactor safety resides at the Nuclear Laboratories.
Radiation Biology, Radioecology and Dosimetry	AECL's facilities and expertise allow Canada to be a leader in understanding the interactions between radiation and radionuclides with biological systems and the physical environment. AECL informs public understanding of the health risks benefits of radiation.
Materials and Chemistry in Nuclear Applications	The term "Materials and Chemistry," is used to describe the behaviour of materials in their environment. Within the nuclear industry in Canada, AECL maintains an expertise in understanding materials performance in extreme environments, such as the inside of a nuclear reactor.
Advanced Nuclear Fuels and Fuel Cycles	The CANDU design is able to utilize a wide range of fuels; such flexibility is impossible with other reactor types. AECL contributes to a stronger energy sector in Canada by fostering advanced and proliferation-resistant fuels; and by establishing technologies to optimize the utilization of fuel material, manage spent fuel, and close fuel cycles.

Systems Engineering	Systems Engineering is a broad topic that involves the design and development of components and integrated systems such as tooling sets, computer systems, control systems and devices to address a variety of challenges that emerge within the nuclear industry.
Advanced Computing, Modelling and Simulation	AECL is the repository of many of the software codes used in the CANDU industry. Under the COE, AECL develops, maintains and qualifies analytical and scientific computer programs that support the design, licensing and operation of nuclear facilities.
Hydrogen and Hydrogen Isotopes Management	Unlike other reactor types, the CANDU uses heavy water to cool and moderate the reactor. This uniqueness has required that Canada (through AECL) develop and maintain a specific capability in understanding the chemistry and management of hydrogen isotopes. Today, AECL's expertise ranges from heavy water production and management, to tritium handling, to developing hydrogen production technologies that will enable future energy systems such as fusion reactors.

7.2.2. The R&D organization consists of approximately 600 FTEs who support many aspects of the nuclear lab activities as indicated in the table below. Approximately 30% of the R&D resources are deployed in supporting AECL operations, DWM and isotopes activities.

R&D	% Deployed
R&D Capability	43%
Comm R&D	27%
NRU	8%
Other	6%
PNO	4%
DWM	4%
ISRP	4%
NFO	2%

7.3. **Waste Management Operations (WMO)**

7.3.1. AECL's has broad DWM capabilities in the management of nuclear wastes in a safe, secure and environmentally-sound manner; retrieval and remediation of stored legacy wastes to mitigate environmental risks; development of technologies for waste processing and storage; and decommissioning of facilities to remove the risks and liabilities.

7.3.2. WMO includes all services associated with processing waste in the Waste Treatment Centre and storing it in Waste Management Areas. The activities and

facilities which contain or produce active materials rely on WMO to safely deal with their waste for ongoing operations. For example, DWM relies on WMO to process legacy waste, store decommissioning debris, and prepare stored active materials to be transferred for disposal.

Waste Management Facilities	
Facility	General Purpose/Usage of Facility
Waste Management Facilities	<p>Waste Management operates processing and storage facilities at CRL for a wide range of radioactive, hazardous, and routine wastes.</p> <p>AECL recycles non-radioactive, non-hazardous waste as much as possible, and dispose of the remainder in a non-radioactive landfill. Non-radioactive but hazardous wastes are sent off the CRL site for reuse, recycling or disposal by commercial waste management companies.</p>

7.3.3. As one of the world’s first nuclear laboratories, AECL had to develop expertise to ensure the safe storage and handling of nuclear and radioactive material. Nuclear Materials Handling (NMH) ensures that nuclear materials are managed and transported safely, at no risk to nuclear workers or the Canadian public. The resultant shipping, accounting, and processing methodologies in use today reflect industry-wide best practices. NMH supports all activities at the Nuclear Laboratories where handling of nuclear materials is required.

WMO & NMH	% Deployed
WMO services to Isotopes & S&T/R&D	41%
DWM	36%
Other	16%
ISRP	7%

7.3.4. These capabilities deploy over 200 DWM and PNO FTEs. WMO services are treated as a facility for cost purposes and cost approximately \$15M. WMO and NMH provide services to all primary AECL activities as summarized in the table.

7.4. **Engineering**

7.4.1. Engineering provides services for the Lab include construction and installation management, site renewal projects, project support services, site infrastructure projects, training, construction services, and other engineering services. Engineering charges services directly to all site activities. The engineering group has over 200 staff. The overall use by Nuclear Laboratories activities is summarized in the table.

Engineering	% Deployed
Eng & Projects	38%
Isotopes	18%
Facilities	17%
DWM	8%
Other	8%
Capital	5%
R&D	5%

7.5. **Facilities**

7.5.1. AECL's specialized nuclear facilities are unique in Canada and require a comprehensive nuclear site license. AECL possesses an array of unique facilities for irradiation and post-irradiation services (e.g. NRU, hot cells, etc.) that are employed by a broad range of customers and stakeholders. The Nuclear Laboratories is host to the NRU, Canada's largest and most versatile research reactor, and several specialized Nuclear S&T facilities which serve materials, chemical, biological, and radiation science, as well as equipment testing. These facilities are being utilized in areas such as isotope production; reactor component & fuel examination; nuclear instrumentation & dosimetry services; materials and reactor-chemistry research; and, the training of nuclear professionals.

7.5.1.1. **NRU (National Research Universal) Reactor** is a flexible multi-purpose reactor. It also supports neutron diffraction through the Canadian Neutron Beam Centre (see below). Irradiation facilities at test loops in the NRU reactor are capable of irradiating a full size CANDU bundle. The NRU is a core element of AECLs medical isotope production. NRU Operations ensure it is available and operated safely and compliantly in support of science and technology programs. Major drivers of general NRU costs include reactor fuel usage, infrastructure and utilities, and maintenance and support. The NRU deploys about 400 FTEs.

7.5.1.2. **Nuclear Fuel Fabrication Facility (NFFF)** manufactures fuel for the NRU and targets for Moly isotope production. The NFFF deploys about 40 FTEs.

7.5.1.3. **Shielded Facilities** are managed by Nuclear Facilities Operations (NFO) and includes the Nuclear Lab's Universal Hot Cells and the Fuel Material Cells. These licensed nuclear facilities are required to support AECLs decommissioning activities and are essential infrastructure for CANDU industry services, associated R&D programs an isotope production. The Hot Cells are situated in two facilities: the Universal Cells (UC), and the Fuels and Materials Cells (FMC). Refurbishments are underway that will address ventilation, contamination control, radiation protection, electrical power and liquid effluent management systems.

7.5.1.3.1. The NFO receives support from all of CRL's shared services, as well as from Waste Management Operations. In turn, it is used by all three core roles, as well as the NRU. The NFO deploys about 50 FTEs.

7.5.1.4. **Canadian Neutron Beam Centre (CNBC)** is supported by AECL's Chalk River Laboratories infrastructure and programs. The cost of the CNBC is now managed by the Nuclear Laboratories. The CNBC operates a user access program enabling more than 200 scientists, engineers, and students from universities, government laboratories, and industry to participate in research using the facility's six neutron beam lines. The CNBC is unique in Canada and provides Canadian scientists with the ability to research the molecular structure of materials as diverse as metals, minerals, plastics and bio-materials.

7.5.1.5. **Specialized Nuclear Facilities:** AECL maintains a number of specialized Nuclear S&T facilities which serve materials, chemical, biological, and radiation science, as well as equipment testing. These facilities are being utilized in areas such as isotope production; reactor component & fuel examination; nuclear instrumentation & dosimetry services; materials and reactor-chemistry research; and, the training of nuclear professionals. The facility capabilities range from general nuclear applications through to CANDU specific technology applications. The full value of these facilities is realized in combination with the specialized knowledge and skills of the Nuclear Laboratories scientists and technologists deployed to deliver on the S&T objectives/services of the Nuclear Laboratories. The combination of specialists and facilities creates a unique capability within the Canadian nuclear science and technology sector.

Use of S&T Facilities	
User	%
Commercial R&D	46%
Public R&D	25%
Isotopes	18%
DWM	7%
Site Support	4%

8. Human Resources Considerations

8.1. **Workforce:** AECL's workforce is multidisciplinary, enabling its operational, production, and S&T activities.

8.2. As of May, 2013, the Nuclear Laboratories employed 3,339 people not including contracted personnel. Of these, 489 were employed in locations other than Chalk River, including the Whiteshell Laboratories in Manitoba. AECL's workforce is highly

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

specialized and qualified with 2,092 employees having post-secondary education. More specifically, 170 have Ph.Ds, 234 have Masters degrees, and 660 have Bachelor degrees. The remaining staff includes trades people and employees with other specialized training (e.g. security and fire protection).

8.3. AECL employs 2458 unionized and 881 non-unionized employees in its locations, with the largest number of employees located at Chalk River. AECL is a party to 14 collective bargaining agreements with a number of different unions that cover four classes of employees.

Nuclear Laboratories Employees by Employee Classification (May 2013)			
Classification	Number of Employees	Percentage	Union
Management	210	6%	Non-Union
M-Scale	671	20%	Non-Union
Administration	225	7%	Union
Professional	759	23%	Union
Technical	592	18%	Union
Trades & Related	882	26%	Union
Total	3339	100%	

Note: of the 3450FTEs deployed by the Nuclear Laboratories, 3339 were permanent employees as of May 2013, with the remainder represented contracted personnel

AECL Employees by Age (Years) (May 2013)		
Age	Number of Employees	Percentage
20-30	566	17%
31-40	782	23%
41-50	1022	31%
51-60	869	26%
61+	100	3%
Total	3339	100%

9. Supplier Considerations

9.1. AECL procures over \$180M in products and services annually through its supply chain.

AECL Supply Chain – Breakdown (\$M) (FY11/12)		
Supply Chain Category	Approx Spend (\$M)	%
Supplies	\$89	48%
Maintenance	\$47	26%
Construction	\$26	14%
Services	\$11	6%
Equipment	\$11	6%
Total	\$184	100%

AECL Supply Chain – Footprint (\$M) (FY11/12)		
Province	Approx Spend (\$M)	%
Ontario	\$151	82%
International	\$17	9%
Quebec	\$5	3%
Alberta	\$2	1%
British Columbia	\$1	1%
Manitoba	\$7	4%
New Brunswick	\$1	0%
Total	\$184	100%

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

Exhibits

A – AECL Nuclear Licenses

B – Overview of Legislative Environment in Which AECL Operates

C – History of AECL

D – Canadian Nuclear Power S&T Ecosystem

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

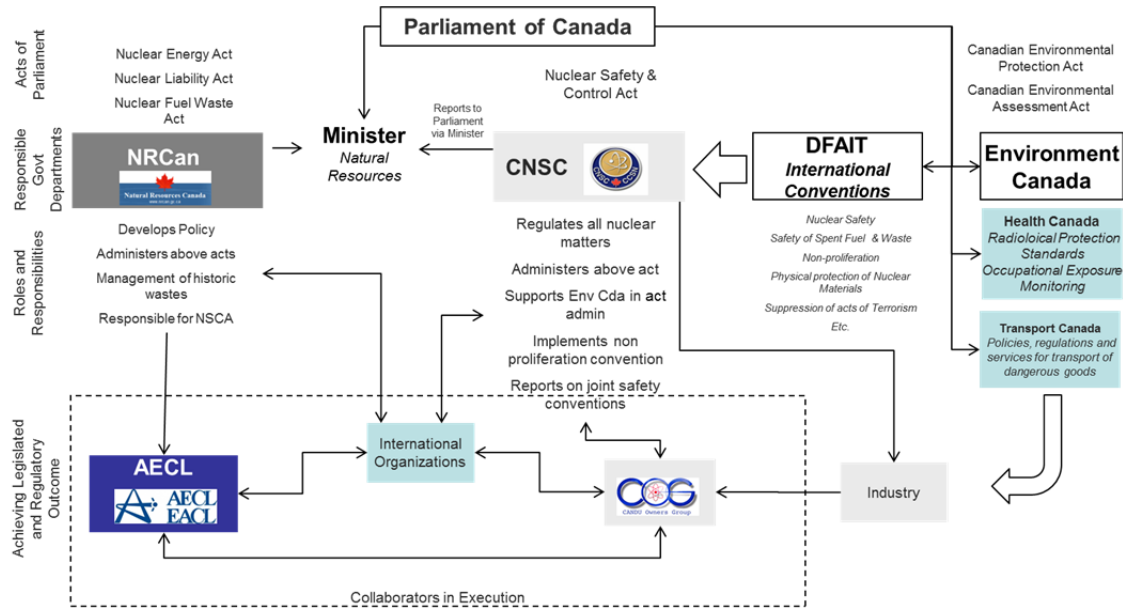
Exhibit A – AECL Nuclear Licences

TIMELINE FOR EXPIRY OF AECL LICENCES, Rev. 2												
Licence - Site and Type	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	
AECL Nuclear Research and Testing Establishment Operating Licence, Chalk River Laboratories, NRTEOL-01.00/2016					Oct-31							
Dosimetry Service Licence, 20004-17-16.3					May-31							
Import / Export Licences												
Export Licence, Chalk River Laboratories, EL-01.02/2016					Jul-31							
AECL Import Licence, IL-01.01/2016					Jul-31							
Chalk River Laboratories Import Licence, IL-A1-4749.0/2014				Jul-31								
Chalk River Laboratories Import Licence, IL-A1-4365.0/2014				Jun-30								
Nuclear Substance and Radiation Devices Licence												
Port Hope (LLRWMO), 20004-7-16.1					Sep-30							
LaPrade, 20004-14-14.3				Oct-31								
Waste Management Facilities Operating Licence¹												
Douglas Point, WFOL-332.4.3	ind	ind										
Gentilly-1, WFOL-331.4.3	ind	ind										
Nuclear Power Demonstration, WFOL-342.2.6	ind	ind										
Waste Nuclear Substance Licence												
Pine Street Extension Port Hope, WNSL-W1-182.0/2021										Dec-31		
LLRWMO (Historic Waste), WNSL-W2-2202.2/2016					Nov-30							
PH Long-Term LLRW Project (Welcome WMF), WNSL-W1-2310.00/2022											Dec-31	
PG Long-Term LLRW Project (Port Granby), WNSL-2311.00/2021										Dec-31		
Port Hope Radioactive WMF (LLRWMO), WNSL-W1-344-1.5/Ind												
Nuclear Research and Test Establishment Decommissioning Licence, NRTEOL-08.01/2018							Dec-31					
Exemption from Licensing - Selected Port Hope Properties					X							

¹ All licences were issued by AECL and have indefinite terms; CNSC has asked AECL to bring forward a renewal application for all 3 prototype reactors (to be covered under a CNSC Waste Facility Operating Licence) by March 2014. The new licence is expected to have 25 year duration.

Exhibit B – Overview of Legislative Environment in Which AECL Operates

This exhibit is illustrative only. Readers should consult the appropriate references for more detail.



Source: Canadian National Report for Convention on Nuclear Safety 2010, SECOR Analysis.

Exhibit C - History of AECL



1945 – The first controlled nuclear chain reaction outside of the US occurs in the ZEEP (Zero Energy Experimental Pile) reactor (retired 1970).

1947 - NRX (National Research Experimental) achieves criticality and generates the highest neutron flux available anywhere at the time (retired 1992).

1951 – Cobalt-60 is pioneered for use in medical treatments. Cobalt-60 therapy is still used today for cancer treatment and annually saves millions of lives worldwide.

1952 – AECL is formed as a Crown Corporation.

1957 - NRU (National Research Universal) begins operation. This research reactor is still used today for researching reactor fuels, materials and components, and for producing medical and industrial isotopes.

1957 - PTR (Pool Test Reactor) is built which used uranium-aluminum plate fuel (retired 1990).

1960 – Construction begins on CANDU prototype at Douglas Point.

1960 - ZED-2 (Zero Energy Deuterium-2), a larger version of ZEEP, is constructed.

1962 – Power is first produced from the Nuclear Power Demonstration (NPD) reactor, created in partnership with AECL, Ontario Hydro, and Canadian General Electric.

1965 – The world's first food irradiation device goes into operation.

1965 - WR-1 (Whiteshell Reactor-1) with stainless steel calandria and organic coolant is established at AECL's Whiteshell Laboratories in Manitoba (retired 1985).

1966 – Construction begins on the first large scale CANDU reactor at Pickering. Commercial operation began in 1971.

1968 - SLOWPOKE-2 (Safe Low Power Critical Experiment) reactor prototype for teaching nuclear science and engineering is tested. Ultimately eight reactors were supplied to universities and research centres.

1976 – The world's first linear accelerator goes into operation for cancer treatment.

1991 – Cerenkov Viewing Device (CVD) is adopted by the International Atomic Energy Agency (IAEA) to monitor spent fuel inventories.

1994 - Bertram Brockhouse is awarded the Nobel Prize in Physics for work on neutron scattering at NRU.

1994 - Pickering Unit 7 (built 1973) sets world record for continuous operation without shutdown (894 days).

1996 – Passive autocatalytic recombiners (PARs), which reduce the risk of hydrogen explosion in reactor accident situations, are made commercially available.

2008 – The Finned Strainer design receives its first patent in France. More than 50 finned strainers, safety devices for loss-of-coolant accidents, have been installed in reactors around the world.

2009 – Development and demonstration of thorium fuel for CANDU reactors.

2009 – Government of Canada announces intent to restructure AECL.

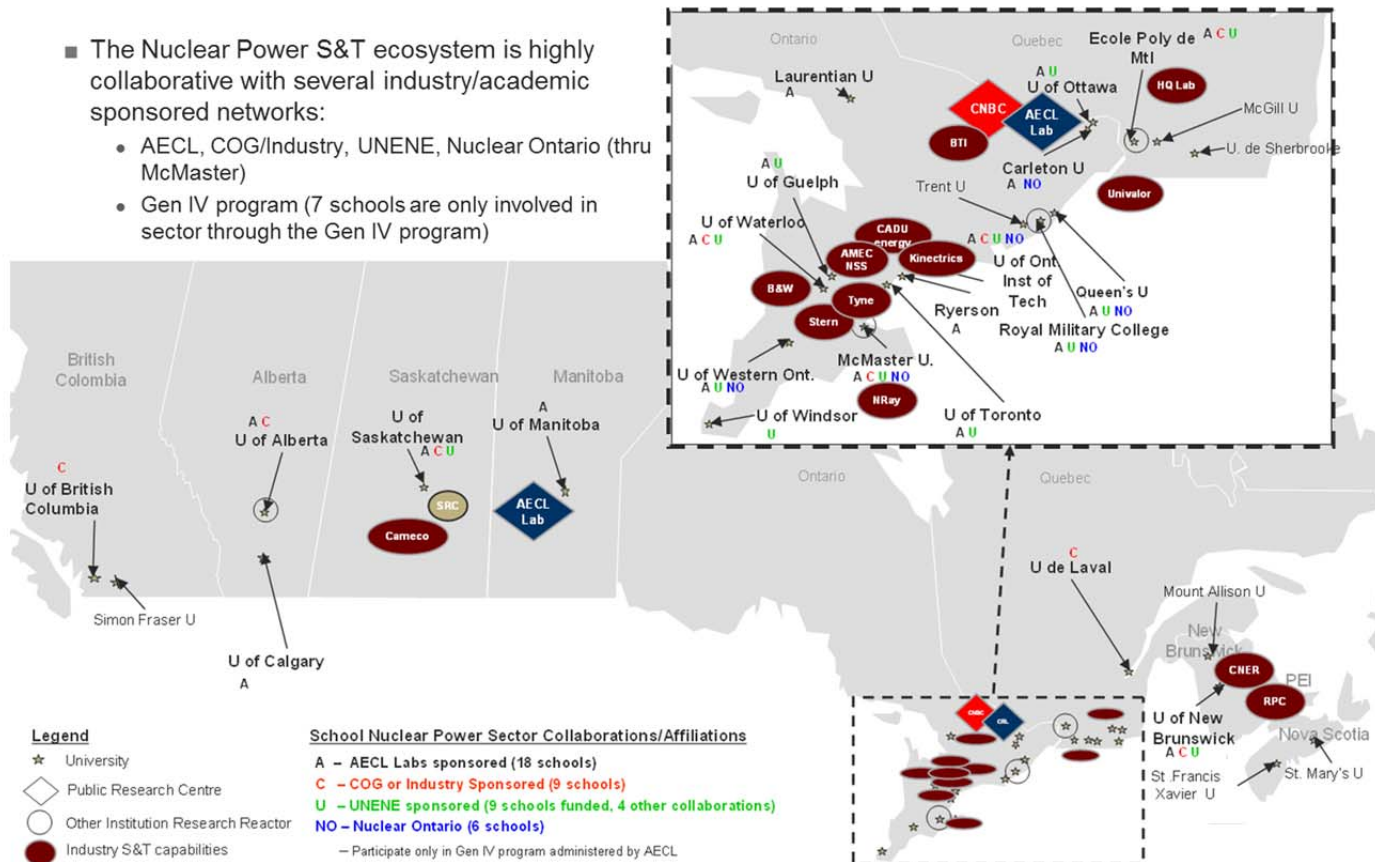
2011 – AECL's CANDU Reactor Division is divested to Candu Energy Inc., a subsidiary of SNC-Lavalin.



Exhibit D – Canada’s Nuclear Power S&T Ecosystem

Nuclear Power S&T ecosystem Core Capabilities includes AECL Labs, Industry capabilities, the SRC and 28 universities in 8 provinces

- The Nuclear Power S&T ecosystem is highly collaborative with several industry/academic sponsored networks:
 - AECL, COG/Industry, UNENE, Nuclear Ontario (thru McMaster)
 - Gen IV program (7 schools are only involved in sector through the Gen IV program)



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Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

References

For additional information please consult the following websites:

AECL's Website
www.aecl.ca

Nuclear Legacy Liability Program
http://www.nuclearlegacyprogram.ca/en/home_en.html

AECL 2012-13 Corporate Plan Summary
http://www.aecl.ca/site/media/Parent/CPS_2013-14_Eng.pdf

AECL Financial Reports
<http://www.aecl.ca/en/home/news-and-publications/business-reporting.aspx>

Comprehensive Preliminary Decommissioning Plan
<http://www.aecl.ca/en/home/environmental-stewardship/cpdp.aspx>

AECL Environmental Performance – January 2014
http://www.aecl.ca/site/media/Parent/CRL_Performance_Eng.pdf

WL Environmental Performance- December 2012
http://www.aecl.ca/site/media/Parent/WL_Performance_Eng.pdf

Port Hope Area Initiative
<http://www.phai.ca>

LLRWMO
<http://www.llrwmo.org>

ANNEX D: CONTENTS OF THE DATA ROOMS

1.1. The contents of the unprotected and protected data rooms are described in the table below. Please refer to Annex E for a detailed description of the requirements to access the protected and unprotected data rooms.

Canada document classification	Subject matter of documents	Location
Unclassified	<ul style="list-style-type: none"> • Corporate documents including site licences and facility descriptions and organizational charts 	Unprotected data room
Protected A and/or Protected B	<ul style="list-style-type: none"> • Corporate and general information including plans, and policies <ul style="list-style-type: none"> ○ Corporate Plan ○ Program Activity Plans ○ Environmental performance and monitoring ○ Building and facility operating costs and schedules ○ Site Plans ○ Information management policies ○ Capital Plan ○ Health, Safety and Security Policies and Programs ○ Operations and maintenance plans, programs, and reports • Radioactive Waste <ul style="list-style-type: none"> ○ Waste inventories ○ Waste generation rates ○ Waste processing and throughputs ○ Nuclear Legacy Liabilities Program annual plan ○ Decommissioning plans • Commercial and Intellectual Property <ul style="list-style-type: none"> ○ Information relating to existing commercial agreements, Subcontracts and IP Agreements • Financial <ul style="list-style-type: none"> ○ Annual financial reports ○ Cash flow 	Protected data room

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

Canada document classification	Subject matter of documents	Location
	<ul style="list-style-type: none">• S&T programs<ul style="list-style-type: none">○ S&T and engineering capabilities○ S&T projects and schedules○ S&T facilities and conditions○ Collaborations Listing• Human resources<ul style="list-style-type: none">○ Pensions and benefits○ Training policies and plans○ Group classifications and demographics• Information Technology<ul style="list-style-type: none">○ Hardware and software	

ANNEX E: REQUIREMENTS FOR ACCESS TO DATA ROOMS (GOVERNMENT FURNISHED INFORMATION (GFI))

1.1. Capitalized terms used herein and not otherwise defined shall have the meanings specified in the RFRE.

Requirements For Access to the Protected Data Room

1.2. Access to the protected data room with GFI will be provided to Qualified Respondents who have signed the Non-Disclosure Agreement (RFRE Annex H), and who satisfy the security requirements described in clause 6.1 of the RFRE, including obtaining personnel security screening clearances for personnel of each Person comprising the Qualified Respondent that intends to have access to the protected data room.

1.3. Prior access to the RFI data room does not mean that access will automatically be granted to the protected data room. The type of information included in the protected data room requires different security clearances. Accordingly, personnel of each Person comprising the Qualified Respondent that intends to have access to the protected data room must have signed the Non-Disclosure Agreement (RFRE Annex H) and must have obtained the required security clearances in order to gain access to the protected data room, as described in clause 6.1 of the RFRE.

1.4. Each Qualified Respondent must submit the names of its personnel that it intends to have access to the protected data room to Canada as outlined in clause 1.5 below. Canada will confirm that the requisite security requirements described in clause 6.1 of the RFRE have been satisfied before access is granted to GFI in the protected data room.

1.5. To request access to the protected data room, each Qualified Respondent must complete the table below entitled "Protected Data Room Access Form" and submit it to EACLLab.AECLLab@pwgsc-tpsgc.gc.ca. Access to the protected data room is conditional upon satisfaction of the security requirements, described in clause 6.1 of the RFRE. Clearances may take additional time so suppliers should be proactive in obtaining necessary clearances.

1.6. The maximum number of personnel per Qualified Respondent that will be granted access to the protected data room at any given time is 20. If an electronic username is used, each username is for the use of one individual, who is identified as the user by name and email address. Usernames must not be shared.

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

1.7. Changes can be made to the list of personnel that have been granted access by re-submitting the completed form below. Mark the new users with a 'Y' in the new user column, and add users to be removed to the lower table.

1.8. Information from the protected data room will be provided electronically or in hardcopy, at the sole and absolute discretion of Canada. The anticipated format of the data room will be an online data depository (virtual data room). Prior to the commencement of detailed consultations with Qualified Respondents, usernames for access to the protected data room will be distributed to Qualified Respondents who have (a) signed the Non-Disclosure Agreement (RFRE Annex H), (b) satisfied the security requirements described in clause 6.1 of the RFRE, and (c) completed and submitted the table below entitled "Protected Data Room Access Form".

1.9. The anticipated contents of the protected data room are described in Annex D of the RFRE.

1.10. The protected data room will remain open to Qualified Respondents who are and remain eligible to participate in the RFP Stage of the procurement process until the close of the RFP Stage.

Requirements for Access to the Unprotected Data Room

1.11. The unprotected data room, to which access was granted during the RFI stage of the procurement process, will remain open until the close of the RFRE Stage. Information that was provided in the unprotected data room will be also available in the protected data room.

1.12. Since the information contained in the unprotected data room is unclassified/unprotected, neither suppliers nor Respondents are required to hold organizational or personal security clearances to access the unprotected data room.

1.13. Suppliers and each Person comprising the Respondent will be limited to a maximum of 5 usernames for the unprotected data room. These usernames can be shared within the respective organizations. One account contact person will be designated for each account and will be expected to manage the list of users on that account.

1.14. For those suppliers or Respondents that have previously submitted names for access to the unprotected data room during the RFI stage of the procurement process, those same names will continue to have access until the account contact person sends a revised list of names for access or until the close of the RFRE Stage.

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

1.15. To request access to the unprotected data room, suppliers and Respondents must complete the table below entitled "Unprotected Data Room Access Form" and submit it to EACLLab.AECLLab@pwgsc-tpsgc.gc.ca.

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

Protected Data Room Access Form

In order to be granted access to the Protected Data Room, Qualified Respondents are required to provide their security clearance information to AECL for verification.

Qualified Respondent Name:	
Date of Form submission:	
Submission number: (if first submission use '1')	

	Organization name:	Facility Address(es) (where the data room is intended to be accessed):	Last name:	First name:	Email address:	Security Clearances have been verified by AECL? (Y/N)	New User? (Y/N)
User 1							
User 2							
User 3							
User 4							
User 5							

Add further rows up to a maximum of 20 users per Qualified Respondent.

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

If resubmitting the form to change access, use the table below to remove access for personnel identified below, if required.

	Organization name	Last name:	Fist name:	Email address:
Remove User				
Remove User				

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

Unprotected Data Room Access Form

Organization Name: _____

Account contact person		
Last name	First name	Email address
Users		
Last name	First name	Email address

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

ANNEX F: MANDATORY TECHNICAL CRITERIA

References by Canada to “dollars” or “(\$)” are in Canadian dollars.

Capitalized terms used herein and not otherwise defined shall have the meanings specified in the RFRE.

1.1 Respondents must demonstrate how they meet the requirements contained in the RFRE. Respondents are required to address clearly and in sufficient depth the elements that are subject to the evaluation criteria against which the Response will be evaluated. Simply repeating the statement contained in the RFRE is not sufficient.

1.2 A project for the purposes of Annex F is considered a set of activities carried out over a defined period of time with a set of objectives and resources. A project can be considered a temporary activity with a start and an end, a program of work, or ongoing activities for a defined period of time.

1.3 Subject to clause 1.4, if the Respondent is comprised of a Respondent Team or a Joint Venture, the Respondent is required to identify which Team Member or Joint Venture Participant has the required experience.

1.4 For the purposes of Annex F - Mandatory Technical Criteria, Canada will also consider the experience of (i) a Person that Controls (as defined below) the Respondent, Team Member or Joint Venture Participant (a "Parent") to satisfy any of the mandatory technical criteria contained herein, subject to clause 1.6, or (ii) a Person other than the Respondent, Team Member, Joint Venture Participant or Parent, as the case may be (hereinafter referred to as "Third Party") to satisfy any of the mandatory technical criteria contained herein, subject to clauses 1.5 and 1.6.

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

Control is defined in this Annex F as:

“Control” means with respect to a Person:

- (a) any other Person, or one or more other Persons acting jointly or in concert, having beneficial ownership (whether directly or indirectly through one or more Persons) of more than 20 percent of the voting shares or other ownership interests of the first Person,

or;

- (b) having the power (whether through ownership of voting shares or other ownership interests, by contract or otherwise) to elect a majority of the directors of a Person that is a corporation or otherwise control the decisions made by or on behalf of that Person.

1.5 Canada will consider the experience of a Third Party only where the Respondent, Team Member, Joint Venture Participant or Parent was ultimately responsible for the performance by the Third Party of its obligations in connection with the relevant experience being relied upon for the evaluation of criteria. This ultimate responsibility must be demonstrated by virtue of the Respondent, Team Member, Joint Venture Participant or Parent, as the case may be, having had the power or authority to direct, or cause the direction of, the management or actions of the Third Party through the ownership of voting securities (for example, the subsidiary of a Parent) or by contract (for example, a subcontract in the case of a Third Party that was a subcontractor of the Respondent, Team Member, Joint Venture Participant or Parent), in connection with the relevant experience being relied upon.

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

1.6 If the experience of a Parent or Third Party is being relied upon, the Respondent is required to include in the Submission Requirements for the applicable Mandatory Technical Criteria: (a) the legal name of the Parent or Third Party that performed the work or services being relied upon to demonstrate the experience, (b) a detailed description of the relationship between the Parent or the Third Party, as the case may be, and the Respondent, Team Member, Joint Venture Participant or Parent, as applicable, and (c) in the case of a Third Party, a demonstration of how the Respondent, Team Member, Joint Venture Participant or Parent, as the case may be, was ultimately responsible for the performance by the Third Party of its obligations in connection with the relevant experience being relied upon.

1.7 In order to facilitate the evaluation of the Response, Canada requests that Respondents address and present topics in the order of the evaluation criteria under the same headings. To avoid duplication, Respondents may refer to different sections of their Response by identifying the specific paragraph and page number where the subject topic has already been addressed.

1.8 The total page count limitations for the Respondent's technical response to the Mandatory Technical Criteria is 50 pages. Please refer to clause 3.1.4.(a) of the RFRE.

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

Criterion ID	Mandatory Technical Criteria	Submission Requirements	Applicable Rating
M1	<p>The Respondent must demonstrate, in a single project, experience managing nuclear facilities. The facilities must:</p> <ul style="list-style-type: none">(i) measure at least 92,903 m² or 1,000,000 ft² in aggregate area; and(ii) are permitted to be spread across up to five separate geographic regions. <p>Where more than five geographic locations are provided, only the first five locations in order of appearance in the Response will be considered.</p> <p>Respondents must demonstrate this experience for a period of at least three consecutive years within the ten years prior to the RFRE Release date.</p>	<p>The Respondent is requested to clearly describe its experience in the project including:</p> <ol style="list-style-type: none">1. name of the client(s);2. name of the reference (and an alternate reference should the first reference not be available if a reference check is conducted), telephone number, fax number and email address;3. description of experience, role of the Respondent in achieving the specific objectives of the project, and size and nature of nuclear facility(ies) managed;4. description of the services rendered by the Respondent in managing the nuclear facilities; and5. start and end dates of the project (provide day, month and a year). <p>Where more than one project is provided, only the first project in order of appearance in the</p>	Pass/Fail

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

		Response will be considered.	
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M2	<p>The Respondent must demonstrate, in a single project, experience where the Respondent was ultimately responsible and accountable for the delivery of a licensed or regulated nuclear infrastructure project.</p> <p>Delivery of a licensed or regulated nuclear infrastructure project is defined as:</p> <ul style="list-style-type: none">• building a new nuclear capital asset(s) or refurbishment(s) or improvement(s) to an existing nuclear capital asset(s); or• contracting to others and overseeing the building of a new nuclear capital asset(s) or refurbishment or improvement of an existing nuclear capital asset(s). <p>The licensed or regulated nuclear infrastructure project must be valued at a minimum of \$100 million in capital costs at the time of construction. In addition, the nuclear infrastructure project must have been completed in that the asset(s) were taken to full completion and were designed, built, commissioned, and made operational to perform their intended core function(s).</p>	<p>The Respondent is requested to clearly describe its experience in the project including:</p> <ol style="list-style-type: none">1. name of the client(s);2. name of the reference (and an alternate reference should the first reference not be available if a reference check is conducted), telephone number, fax number and email address;3. description of the planned scope, timeline and budget at the outset of the project and the actual results achieved at its conclusion. Description of the services rendered by the Respondent and the experience and role of the Respondent in achieving the specific objectives of the project;4. a clear description of how the Respondent successfully completed the commissioning element of the nuclear infrastructure project;	Pass/Fail
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Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

	<p>Experience will only be considered for a single project that took place within the ten years prior to the RFRE Release date.</p>	<p>5. a clear description of how the work was completed in relation to the committed timeframe and budget; and</p> <p>6. start and end dates of the infrastructure project (provide day, month and a year).</p> <p>Where more than one nuclear infrastructure project is provided, only the first project in order of appearance in the Response will be considered.</p>	
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Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

M3	The Respondent must demonstrate experience managing 1,000 or more full-time equivalent unionized personnel for a period of at least five consecutive years within the last ten years prior to the RFRE release date.	The Respondent is requested to clearly describe its experience including: <ol style="list-style-type: none">1. name of the organization(s) for whom the personnel were employed, the number of full-time equivalent personnel managed and the unionized status and affiliation(s) of personnel;2. name of the client or organizational reference (and an alternate reference should the first reference not be available if a reference check is conducted), telephone number, fax number and email address;3. description of the experience of the Respondent and scope of responsibilities in managing the personnel, including collective bargaining;4. description of services rendered by the Respondent; and5. start and end dates of the period of managing the personnel (provide day, month and a year).	Pass/Fail
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Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

M4	<p>The Respondent must demonstrate experience managing a multi-disciplinary team of at least 250 full-time equivalent personnel performing scientific research (either basic or applied) and development.</p> <p>Scientific research and development experience in the following areas or locations will not be considered:</p> <ul style="list-style-type: none">• decommissioning and radioactive waste management; and• laboratories that exclusively perform testing (e.g., metallurgical testing, drug testing, and chemical analysis). <p>Respondents must demonstrate this experience for a period of at least three consecutive years within the ten years prior to the RFRE Release date.</p>	<p>The Respondent is requested to clearly describe its experience including:</p> <ol style="list-style-type: none">1. name of the organization(s) for whom the multi-disciplinary team worked;2. name of the client or organizational reference (and an alternate reference should the first reference not be available if a reference check is conducted), telephone number, fax number and email address;3. description of experience of the Respondent and role in managing the personnel;4. description of the scientific research and development outputs generated by the team and its composition (number of people and degrees and qualifications); and5. start and end dates of the period of the management of the personnel (provide day, month and a year).	Pass/Fail
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Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

M5	<p>The Respondent must demonstrate experience in:</p> <p>a) decommissioning of contaminated nuclear facilities and infrastructure which must include one of the following:</p> <ul style="list-style-type: none">(i) reactor;(ii) irradiated fuel handling facility;(iii) fuel handling / reprocessing facility; or(iv) plutonium facilities and uranium enrichment facilities; and <p>b) processing of waste streams that includes such activities as: segregation, characterization, treatment (e.g., volume reduce, chemically stabilize), or packaging for long term storage; and</p> <p>c) the long-term management of waste in purpose-built waste storage or disposal / repository facilities.</p> <p>Two years of demonstrated experience in each of (a), (b), and (c) above is required. Experience in each of (a), (b), and (c) must include the handling high-level waste, as defined by the International Atomic Energy Agency (IAEA), and at least one of two following waste classifications, as defined by the IAEA: low-level or intermediate-level.</p> <p>Experience must have been performed continuously for a minimum of two consecutive years for each of (a), (b), and (c) within the last ten years prior to the RFRE release date.</p>	<p>The Respondent is requested to clearly describe its experience in the projects including:</p> <ol style="list-style-type: none">1. name of the client(s);2. name of the reference (and an alternate reference should the first reference not be available if a reference check is conducted), telephone number, fax number and email address;3. description of projects and experience of the Respondent and role in achieving the specific objectives of the projects;4. description of services rendered by the Respondent, including the waste classifications handled; and5. start and end dates of the project (provide day, month and a year). <p>Where more than one project is provided for each of a) b) and c) , only the first three projects in order of appearance in the Response for each of (a), (b) and (c) will be considered.</p>	Pass/Fail
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Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

M6	<p>The Respondent must demonstrate, in a single project, experience in setting objectives, scope or a framework and ultimately delivering a research and development (R&D) project focused on:</p> <ul style="list-style-type: none">• developing, and extracting value from, new nuclear technology; or• advancing the state of the art of nuclear science. <p>The R&D project must be driven by a set of long-term goals (long-term is defined as being realized after five years or more).</p> <p>The R&D project must have had an annual budget of at least \$10 million for a minimum of three consecutive years.</p> <p>Experience must have been performed continuously for a minimum of three consecutive years within the last ten years prior to the RFRE release date.</p>	<p>The Respondent is requested to clearly describe its experience in the project including:</p> <ol style="list-style-type: none">1. name of the client(s);2. name of the reference (and an alternate reference should the first reference not be available if a reference check is conducted), telephone number, fax number and email address;3. description of experience of the Respondent and role in achieving the specific objectives of the project;4. description of services rendered by the Respondent that includes a list of long-term goals of the project, budget, and identifies the activities undertaken within the project to exploit technology and their outcomes. The description should be no longer than one page; and5. start and end dates and value of the project (provide day, month and a year). <p>Where more than one project is provided, only the first project in order of appearance in the Response will be considered.</p>	Pass/Fail
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Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

M7	<p>In a single project, the Respondent must demonstrate experience implementing organizational change impacting more than 2,000 full-time equivalent employees.</p> <p>Respondents must demonstrate this experience for a period of at least two consecutive years within the last ten years prior to the RFRE release date.</p>	<p>The Respondent is requested to clearly describe its experience in the project including:</p> <ol style="list-style-type: none">1. name of the client(s);2. name of the reference (and an alternate reference should the first reference not be available if a reference check is conducted), telephone number, fax number and email address;3. description of experience of the Respondent and role in achieving the specific objectives of the project;4. description of the services rendered by the Respondent; and5. start and end dates of the project (provide day, month and a year). <p>Where more than one project is provided, only the first project in order of appearance in the Response will be considered.</p>	Pass/Fail
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Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

M8	<p>The Respondent must demonstrate, in a single project, experience in the management of an integrated approach for nuclear safety, health, security, environmental protection, conventional safety, radioactive waste management, and radiation protection on a project of at least \$100 million in value.</p> <p>Respondents must demonstrate this experience for a period of at least three consecutive years within the last ten years prior to the RFRE release date.</p>	<p>The Respondent is requested to clearly describe its experience in the project including:</p> <ol style="list-style-type: none">1. name of the client(s);2. name of the reference (and an alternate reference should the first reference not be available if a reference check is conducted), telephone number, fax number and email address;3. description of experience of the Respondent and role in achieving the specific objectives of the project;4. description of the services rendered by the Respondent; and5. start and end dates of the project (provide day, month and a year). <p>Where more than one project is provided, only the first project in order of appearance in the Response will be considered.</p>	Pass/Fail
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Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

M9	<p>The Respondent must demonstrate experience operating a nuclear reactor or overseeing the operations of a nuclear reactor.</p> <p>Respondents must demonstrate this experience for a period of at least three consecutive years within the last ten years prior to the RFRE Release date.</p>	<p>The Respondent is requested to clearly describe its experience in the project including:</p> <ol style="list-style-type: none">1. name of the client(s);2. name of the reference (and an alternate reference should the first reference not be available if a reference check is conducted), telephone number, fax number and email address;3. description of experience of the Respondent and role in operating the nuclear reactor or overseeing the operations of a nuclear reactor;4. description of the operating nuclear reactor including its design, primary purpose(s), energy output, and year placed into full operation;5. description of services rendered by the Respondent; and6. start and end dates of the project (provide day, month and a year).	Pass/Fail
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ANNEX G: RESPONDENT PREPARATION CHECKLIST

The purpose of this checklist is to assist Respondents in preparing their Response. It is the Respondent's responsibility to ensure that they provide all information necessary to respond to all requirements of the Request for Response Evaluation (RFRE).

Capitalized terms used herein and not otherwise defined shall have the meanings specified in the RFRE.

In the event of a discrepancy between the wording of this checklist and the RFRE or any other document included in the RFRE, the wording of the RFRE or other document included in the RFRE will have priority over the wording of this checklist.

Overall Response Checklist:

RFRE Reference	Submission Requirement
3.1.	<p>Response includes the following elements:</p> <ul style="list-style-type: none"><input type="checkbox"/> Section I: Respondent Legal Status (5 paper copies and 1 soft copy in searchable PDF Format, on CD or Memory Stick)<input type="checkbox"/> Section II: Technical Response (10 paper copies and 1 soft copy in searchable PDF Format, on CD or Memory Stick)<input type="checkbox"/> Section III: Additional Information (3 paper copies and 1 soft copy in searchable PDF Format, on CD or Memory Stick)<input type="checkbox"/> Section IV: National Security Requirements (10 paper copies and 1 soft copy in searchable PDF Format, on CD or Memory Stick)<input type="checkbox"/> One hard copy has been marked as "original", and such original has been signed in handwriting by a Respondent (if it is a single entity) or by all Team Members and/or Joint Venture Participants (if the Respondent is comprised of a Respondent Team and/or Joint Venture) and by the Respondent Representative<input type="checkbox"/> The Response has been formatted in accordance with the formatting instructions described in clauses 3.1.3 and 3.1.4 of the RFRE.

Section I: Respondent Legal Status

RFRE Reference	Submission Requirement
p.5	<p>Respondent Acknowledgement of the Terms of the RFRE</p> <p><input type="checkbox"/> The Respondent Representative, the Respondent, or if the Respondent is not a single entity and is comprised of a Respondent Team and/or a Joint Venture, then each Team Member and/or Joint Venture Participant have signed and included the Respondent Acknowledgement of the Terms of the RFRE as part of its Response.</p>
2.19.1.	<p>Legal Capacity – Respondent that is a Single Entity</p> <p><input type="checkbox"/> If a Respondent is a single entity, it has the legal capacity to contract.</p> <p><input type="checkbox"/> If the Respondent is not an individual, the Respondent has provided a statement and any requested supporting documentation (e.g., official incorporation certificate) indicating the laws under which it is registered or incorporated together with the registered or corporate name and place of business.</p> <p><input type="checkbox"/> A Respondent has identified the name of its Respondent Representative and Guarantor(s).</p>
2.20.1.	<p>Arrangements – Team Members and Joint Ventures</p> <p>If a Respondent is not a single entity, it has indicated that it is comprised of a Respondent Team or that it is a Joint Venture, as the case may be, and has provided the following information:</p> <p><input type="checkbox"/> the name and address of each Prime Team Member, Other Team Member and/or Joint Venture Participant, as the case may be, and all direct and indirect ownership interests in each of the foregoing (provided that if a direct or indirect owner is itself publicly owned, it is only necessary to identify those individuals or entities that own or control at least 20% of the outstanding voting shares);</p> <p><input type="checkbox"/> a description of the proposed overall Respondent structure, including a description of the roles for each of the Team Members and/or Joint Venture Participants, the legal relationships within the Respondent (e.g., shareholdings, joint venture agreements, teaming agreements, proposed subcontractor relationships with Other Team Members),</p>

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

RFRE Reference	Submission Requirement
	<ul style="list-style-type: none"><li data-bbox="375 363 1386 436"><input type="checkbox"/> an organizational chart showing at the corporate level, the organization of the Respondent;<li data-bbox="375 443 1330 516"><input type="checkbox"/> the Procurement Business Number of each Team Member and Joint Venture Participant;<li data-bbox="375 543 1386 659"><input type="checkbox"/> in respect of each Team Member and/or Joint Venture Participant, all of the documents and information referred to in Section 2.19 of the RFRE that are required to be submitted by a Respondent that is a single entity;<li data-bbox="375 665 899 718"><input type="checkbox"/> the name of any Guarantor(s); and<li data-bbox="375 724 1029 766"><input type="checkbox"/> the name of the Respondent Representative.

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

Section II: Technical Response

RFRE Reference	Submission Requirement
Annex F – Mandatory Technical Criteria	Mandatory Technical Criteria <input type="checkbox"/> The Respondent has included the information specified in Annex F (Mandatory Technical Criteria) to the RFRE to demonstrate their experience.

Section III: Additional Information

RFRE Reference	Submission Requirement
6.3.5.	<p>Financial Capability</p> <p>To determine the Respondent's financial capability, the Respondent is required to submit the financial information detailed below as part of its Response.</p> <p>If the Respondent is not a single entity and is comprised of a Respondent Team and/or Joint Venture, the financial information required by the Contracting Authority and described in clause 6.3.5.(a) to (e) of the RFRE (and reproduced below) must be provided by each Prime Team Member and Guarantor, as applicable. All references to the Respondent in sub-clauses 6.3.5.(a) to (e) of the RFRE (and reproduced below) are deemed to be references to each Prime Team Member and Guarantor.</p> <ul style="list-style-type: none"><input type="checkbox"/> (a) audited financial statements, if available, or the unaudited financial statements (prepared by the Respondent's outside accounting firm, if available, or prepared in-house if no external statements have been prepared) for the Respondent's five most recently completed fiscal years, or for the years that the Respondent has been in business if this is less than five years (including, as a minimum, the Balance Sheet, the Statement of Retained Earnings, the Income Statement and any notes to the statements);<input type="checkbox"/> (b) if the date of the financial statements in (a) above is more than five months before the date of the request for information by the Contracting Authority, the Respondent has also included, unless prohibited by legislation for public companies, the last quarterly financial statements (consisting of a Balance Sheet and a year-to-date Income Statement), as of two months before the date of Response submission;<input type="checkbox"/> (c) if the Respondent has not been in business for at least one full fiscal year, the following has been included:<ul style="list-style-type: none"><input type="checkbox"/> i. the opening Balance Sheet on commencement of business (in the case of a corporation, the date of incorporation); and<input type="checkbox"/> ii. the last quarterly financial statements (consisting of a Balance Sheet and a year-to-date Income Statement) as of two months before the date of Response submission;<input type="checkbox"/> (d) certification from the Chief Financial Officer or an authorized signing

RFRE Reference	Submission Requirement
	<p>officer of the Respondent that the financial information provided is complete and accurate, including disclosure of the following:</p> <ul style="list-style-type: none"> <input type="checkbox"/> i. Any material existing or potential claims, litigation or proceedings against the Respondent. In the event that there are material existing or potential claims, litigation or proceedings, the Respondent is requested to describe how such potential damages will be supported; <input type="checkbox"/> ii. Confirmation that there is no material adverse change that is not otherwise disclosed in the financial information; <input type="checkbox"/> iii. Confirmation of no material off-book financing arrangements not reflected in information already provided; and <input type="checkbox"/> iv. For entities debt-rated by a credit rating agency, a copy of the most recent credit rating report (including credit warnings produced since the publication of said report) from each agency that rates the Respondent's debt, or confirmation that no such ratings exist; and <input type="checkbox"/> (e) a confirmation letter from all of the financial institution(s) that have provided short-term financing to the Respondent outlining the total of lines of credit granted to the Respondent and the amount of credit that remains available and not drawn upon as of one month prior to the date on which the Contracting Authority requests this information.
<p>6.3.6.</p>	<p><input type="checkbox"/> The Respondent includes a letter of support from each Guarantor confirming its intention to comply with the requirements and obligations of the Guarantors described in the RFRE if, as and when they arise, including with respect to the delivery of the Guarantees.</p>
<p>2.26. Annex H</p>	<p>Non-Disclosure Agreement (NDA)</p> <p><input type="checkbox"/> The Respondent, or if the Respondent is not a single entity but is instead comprised of a Respondent Team and/or a Joint Venture, then each Team Member and/or Joint Venture Participant comprising the Respondent, has, in connection with the submission of a Response, executed and submitted the NDA attached as Annex H to the RFRE.</p>
<p>2.25.4.</p>	<p>List of Directors</p> <p><input type="checkbox"/> A Respondent that is incorporated has provided a complete list of names of all individuals who are currently directors thereof.</p>

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

RFRE Reference	Submission Requirement
p.6 3.6.4.	Language Preference The Respondent has included its preference for which of Canada's two official languages should be used for future communications from Canada. <input type="checkbox"/> English <input type="checkbox"/> Français

Section IV – National Security Requirements:

RFRE Reference	Submission Requirement
6.2.4.	<p>National Security</p> <p>References to Respondent in clause 6.2.4 of the RFRE (and reproduced below) are deemed to mean, and the provisions of clause 6.2.4 of the RFRE apply to and in respect of: (a) the Respondent (if the Respondent is a single entity); (b) each Team Member and/or Joint Venture Participant (if the Respondent is comprised of a Respondent Team and/or Joint Venture); and (c) each Guarantor.</p> <p>The Respondent has provided the following detailed information about its organizational structure:</p> <ul style="list-style-type: none"><input type="checkbox"/> the jurisdiction in which the Respondent is legally organized (if the Respondent is an individual, then provide the Respondent's citizenship and country of residency);<input type="checkbox"/> the jurisdiction in which the Respondent's principal place of business is located;<input type="checkbox"/> a list identifying all Persons that Control (as defined in clause 6.2.9 of the RFRE) the Respondent (each such Person, a "Controlling Person");<input type="checkbox"/> the jurisdiction in which the Controlling Person is legally organized (if the Controlling Person is an individual, then provide the Controlling Person's citizenship and country of residency); and<input type="checkbox"/> the jurisdiction in which the Controlling Person's principal place of business is located.

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

ANNEX H: NON-DISCLOSURE AGREEMENT

The Government of Canada, as represented by the Minister of Natural Resources (“**we**”, “**us**” or “**Canada**”) is currently engaged in procuring services of a private sector contractor to manage the site operating company that will be responsible for the management and operation of the Nuclear Laboratories of Atomic Energy of Canada Limited (“**AECL**”) under a Government-owned, Contractor-operated model (“**the Restructuring**”). As part of the Restructuring and related procurement process, we desire to share information with _____

(“**you**”) in order to facilitate (a) your participation in the procurement process generally, including the Request for Response Evaluation (“**RFRE**”) stage of the procurement process and, if applicable, the Request for Proposal (“**RFP**”) stage of the procurement process, (b) your evaluation of the Restructuring and the procurement process generally, including the RFRE stage of the procurement process and, if applicable, the RFP stage of the procurement process, (c) if applicable, feedback from you on the draft RFP, and (d) preparation of a Response and, if applicable, a Bid. Capitalized terms used in this Non-Disclosure Agreement and not otherwise defined herein shall have the respective meanings ascribed to them in the RFRE.

As part of the procurement process, you may receive information in connection with or relevant to the Restructuring, AECL, Canada, the RFRE, the RFP and the procurement process generally, which information is non-public, confidential or proprietary in nature, including (a) any such information that may have been provided previously to you by us, AECL or on our behalf by a third party, (b) any such information learned by you from employees or agents of Canada and/or AECL or through inspection of AECL's property or records that, in each case, relates to the Restructuring or the procurement process generally, or (c) third party confidential information disclosed to you by Canada or AECL and all such information, whether provided orally or in writing and in whatever medium (including information contained in the Data Room (defined below)), and regardless of whether specifically identified as “**CONFIDENTIAL**” or not, is collectively referred to as the “**Information**”. All Information furnished to you must be treated by you as set forth below unless we and AECL otherwise consent in writing.

For greater certainty, the content of any discussions between you, if applicable, your Representative(s) (as defined below) and Canada or you, your Representative(s) (if applicable) and AECL and all analysis, compilations, data, studies or other documents or records prepared by you or your Representatives containing or based, in whole or in part, upon any Information furnished to you or your Representatives shall, in each case,

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

be deemed to be Information and subject to the terms of this Non-Disclosure Agreement.

In consideration of the mutual covenants contained herein, and for other good and valuable consideration (the receipt and sufficiency of which are hereby confirmed and acknowledged), the parties hereto agree as follows:

1. Confidentiality Obligation

(a) Subject to paragraph 4 below, the Information:

(i) must be kept strictly confidential by you and your Representatives and must not, without our prior written consent and that of AECL, be disclosed by you or your Representatives to any other person (as defined below), directly or indirectly, in whole or in part; and

(ii) must not be used by you or your Representatives directly or indirectly for any purpose other than to evaluate the Restructuring, prepare a Response and, if applicable, a Bid and any other use permitted by the RFRE, RFP or this Non-Disclosure Agreement.

(b) You agree to restrict access to the Information and to transmit the Information only to individuals designated by you who need to know the Information for the purposes set out in paragraph 1(a)(ii), who are informed of the confidential nature of the Information and who have the requisite security clearances required by Canada to obtain access to the classification of Information furnished by you to such individual (any such individual being referred to as a "Representative").

The term "**person**" as used in this Non-Disclosure Agreement shall be broadly interpreted to include, without limitation, the media, unions, any individual, corporation, partnership, joint venture, syndicate, association, trust, governmental authority or other form of legal entity.

2. Non-Disclosure of Discussions

Without our prior written consent and that of AECL, you and your Representatives will not disclose to any other person (i) the content of discussions between you, your Representative(s) (if applicable) and Canada or you, your Representative(s) (if

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

applicable) and AECL relating to the Restructuring, the procurement process generally, including the RFRE stage of the procurement process or, if applicable, the RFP stage of the procurement process and (ii) the name of any other person that is participating in the discussions with you, your Representative(s) (if applicable) and Canada or you, your Representative(s) (if applicable) and AECL, unless and only to the extent that disclosure is required to be made under applicable laws by an order of a court or regulatory authority of competent jurisdiction, provided that you will provide us and AECL with reasonable advance notice prior to making such disclosure and paragraph 4 of this Non-Disclosure Agreement shall apply.

3. Limited Exceptions

This Non-Disclosure Agreement does not apply to any Information that:

- a) is or becomes generally available to the public other than as a result of a disclosure that is a breach of this Non-Disclosure Agreement;
- b) becomes available to you on a non-confidential basis from a source other than us or AECL, so long as that source is not, to your knowledge after reasonable inquiry, bound by a non-disclosure agreement with respect to the Information or otherwise prohibited from transmitting the Information to you by a contractual, legal or fiduciary obligation; or
- c) you are able to demonstrate was known to you on a non-confidential basis before it was disclosed to you by us or AECL.

4. Legal Compulsion

In the event that you or any of your Representatives becomes legally compelled to disclose any of the Information by an order, direction or similar action of a court or regulatory authority of competent jurisdiction, you must provide us with prompt written notice so that we or AECL may seek a protective order or other appropriate remedy and/or waive compliance with the provisions of this Non-Disclosure Agreement. In the event that such protective order or other remedy is not obtained, or that we waive compliance with the provisions of this Non-Disclosure Agreement, you will furnish only that portion of the Information which is, in the written opinion of legal counsel, legally required to be disclosed and will exercise reasonable efforts to obtain reliable assurance that confidential treatment will be accorded the Information.

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

5. Return or Destruction of Information

With respect to the Information, you must, within three business days of a request from us or AECL deliver to us or destroy, if so requested by us, all Information in your possession or in the possession of your Representatives without retaining copies thereof unless required by applicable law to do so (such destruction to be certified promptly in writing to us by your authorized officer supervising such destruction). In such event, within the same time period, you must ensure that all other documents or records (whether in writing or stored in computerized, electronic, disk, tape, microfilm or any other form) in your possession or in the possession of your Representatives constituting or containing Information created by or for you are destroyed or erased, as the case may be (such destruction to be certified promptly in writing to us by your authorized officer supervising such destruction). Notwithstanding any such return or destruction of the Information, you and your Representatives will continue to be bound by your and their obligation of confidentiality hereunder.

6. Obligations with respect to Information and Discussions

You acknowledge that neither we nor AECL hereby make any representation or warranty as to the accuracy or completeness of the Information and that we and AECL are under no obligation to update the Information or to correct any errors or inaccuracies in, or omissions from, any Information provided to you. You further agree that neither we nor AECL shall have any liability, direct or indirect, to you or to any of your Representatives as a result of the use of the Information by you or your Representatives.

7. Right to Injunctive Relief and Specific Performance

You acknowledge and agree that a breach of any of the covenants or provisions contained herein would cause Canada and AECL to suffer loss which could not be adequately compensated for by damages and that we may, in addition to any other remedy or relief, enforce the performance of this Non-Disclosure Agreement by injunction or specific performance or other equitable relief upon application to a court of competent jurisdiction without proof of actual damage to us or the requirement of posting a bond or security. Such equitable remedies shall be in addition to and not in lieu of any other appropriate relief available to us in law or equity. It is further understood and agreed that no failure or delay by us in exercising any right, power or privilege under this Non-Disclosure Agreement shall operate as a waiver thereof, nor

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

shall any single or partial exercise thereof preclude any other or future exercise of any right, power or privilege hereunder.

8. Effective Date of Agreement

This Non-Disclosure Agreement shall become effective on the last date it is executed by the parties hereto as indicated below.

9. Miscellaneous

a) This Non-Disclosure Agreement shall be governed by and construed in accordance with the laws of the Province of Ontario and the federal laws of Canada applicable therein. The parties hereby irrevocably attorn to the jurisdiction of the Federal Court of Canada with respect to any matter relating to this Non-Disclosure Agreement.

b) This Non-Disclosure Agreement may be validly executed by facsimile or email transmission and in any number of counterparts, all of which taken together shall constitute one and the same Non-Disclosure Agreement and each of which shall constitute an original.

BY: _____

NAME: _____

TITLE: _____

DATE ACCEPTED AND AGREED TO: _____

ATOMIC ENERGY OF CANADA LIMITED

BY: _____

NAME: _____

TITLE: _____

DATE: _____

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

**HER MAJESTY IN RIGHT OF CANADA AS
REPRESENTED BY THE MINISTER OF
NATURAL RESOURCES**

BY: _____

NAME: _____

TITLE: _____

DATE: _____

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

ANNEX I: SITE VISIT FORM

1. Personal Information

SURNAME:

FIRST NAME:

SECOND NAME:

CITIZENSHIP:

PERM. RESIDENT:

PASSPORT # (IF NOT CAN.):

2. Contact Information

CONTACT NAME:

PHONE #:

EMAIL ADDRESS:

3. Home Address

STREET:

CITY:

PROVINCE:

COUNTRY:

POSTAL CODE:

4. Name of Firm Representing

NAME OF FIRM:

TITLE:

STREET:

CITY:

PROVINCE:

COUNTRY:

ANNEX J: TERMS OF ENGAGEMENT

1. Context

As part of the restructuring of the Nuclear Laboratories of Atomic Energy of Canada Limited (AECL) to a Government-owned, Contractor-operated (GoCo) model, Canada will be engaging in a competitive procurement process.

The purpose of these Terms of Engagement is to set out the terms governing the appropriate conduct of Respondents, Qualified Respondents and Bidders during the procurement process, with a view to maintaining the highest standard of openness, transparency and fairness. These Terms of Engagement also set out terms governing the non-binding detailed consultations between Canada and Qualified Respondents as part of the Request for Response Evaluation (RFRE) Stage of the GoCo procurement process.

2. Definitions

Capitalized terms used in these Terms of Engagement and not otherwise defined, have the meaning ascribed to them in clause 1.5 of the RFRE.

3. Application

These Terms of Engagement apply to Respondents, Qualified Respondents and Bidders, from the date of issuance of the RFRE to the date of execution of the Contract. Each Respondent, Qualified Respondent and Bidder agrees to comply with, and be bound by, these Terms of Engagement.

4. Principles

Fairness

An overriding principle of the GoCo procurement process is that it be conducted with the utmost fairness and transparency between all parties. No Respondent, Qualified Respondent or Bidder is to receive any unfair advantage over any other.

Transparency

All activities of Canada will be conducted in a transparent manner, to the extent that no sensitive or confidential information provided by a Respondent, Qualified Respondent or Bidder will be shared by Canada to any other Respondent, Qualified Respondent or Bidder, unless otherwise agreed upon in advance by the Respondent, Qualified Respondent or Bidder, as applicable.

Canada, at its sole and absolute discretion, reserves the right to share any information provided by Respondents, Qualified Respondents or Bidders, including sensitive and/or confidential information, with employees and representatives of Canada or third party consultants retained by Canada, subject to Canada obtaining its usual confidentiality undertakings from these third party consultants. This is limited to information that it considers necessary for the purposes of the GoCo procurement process.

Fair access to Government information

All Respondents, Qualified Respondents and Bidders will be provided fair access to information provided by Canada. Canada will ensure that any information is provided through the protected data room for Qualified Respondents who have signed the Non-Disclosure Agreement (Annex H of the RFRE) and who satisfy certain security requirements, as required in clause 6.1 (Security Requirements) of the RFRE.

5. Use of External Advisors by Canada

In the context of the GoCo procurement, Canada is receiving expert advice from third party consultants and has retained the services of temporary agency personnel. Refer to RFRE Part 2, clause 2.21 (Conflict of Interest – Unfair Advantage) for further guidance on conflict of interest and measures taken to protect the integrity of the GoCo procurement process.

6. Terms of Engagement for the RFRE Detailed Consultations

Please refer to clause 1.8.2 in the RFRE for more information on the detailed consultations.

In order to encourage open dialogue, Qualified Respondents agree to the following as part of the detailed consultations:

- a) An agenda with discussion topics and any available supporting documentation will be provided to Qualified Respondents in advance of each session.
- b) A summary of group discussions may be distributed to all Qualified Respondents. However, no sensitive or confidential information provided by a Qualified Respondent to Canada will be shared by Canada with any other Qualified Respondent, unless otherwise agreed upon in advance by the Qualified Respondent. Qualified Respondents who participate in the detailed consultations are expected to discuss their views concerning the GoCo procurement process, and, as applicable, to the nuclear innovation agenda, and to provide constructive feedback on the discussion topics. Every Qualified Respondent shall have equal opportunity to share its ideas and suggestions.

- c) Respondents who become Qualified Respondents after the Second Response Intake Date or the Final Response Intake Date will be allowed to provide feedback on topics previously covered in the detailed consultations but will not be granted additional time for detailed consultations.
- d) All documents and information provided to Qualified Respondents, who have qualified after the First Response Intake Date, will also be provided to Qualified Respondents who qualified after the Second Response Intake Date or the Final Response Intake Date.
- e) Media cannot participate in one-on-one meetings or group sessions.
- f) Canada is not obligated to release any RFP for this initiative.
- g) If Canada does release a RFP, the terms and conditions of the RFP shall be subject to Canada's sole and absolute discretion.
- h) Canada is not obligated to enter into a Contract in connection with this initiative, even if a RFP is released.
- i) Canada will not reimburse any person or entity for any cost incurred in participating in the detailed consultations.
- j) Participation in the detailed consultations is not a mandatory requirement.
- k) The final Draft RFP may be released to all Qualified Respondents for comment as part of the detailed consultations. If required, a group session to discuss the Draft RFP or any other topic may be organized.
- l) A dispute resolution process to manage impasses throughout the detailed consultations shall be adhered to in accordance with the process outlined below in clause 8. All requests to use the dispute resolution process shall be directed to the Contracting Authority who will make the appropriate arrangements.

7. Terms of Engagement by Category

7.1 Terms of Engagement with Canada (other than the Canadian Nuclear Safety Commission)

Communication with officials of Canada, including Ministers of the Crown, regarding all aspects of the GoCo procurement process are limited to official communication channels either through the detailed consultations or the Contracting Authority.

In responding to requests, Canada will endeavour to ensure that Respondents, Qualified Respondents and Bidders receive information in a timely manner.

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

If in the course of, or arising out of a one-on-one meeting, Canada provides a Qualified Respondent with information that would reasonably be considered to be new information with respect to the GoCo procurement process, then Canada will promptly provide such information to all Qualified Respondents.

Canada will not disclose proprietary or commercially-sensitive information concerning a Qualified Respondent with any other Qualified Respondent except and only to the extent required by law, or as agreed upon in advance with the Qualified Respondent. Any information provided by a Qualified Respondent to Canada that is of a proprietary nature must be clearly marked "proprietary" at each relevant item. Items identified as proprietary will be treated as such, except if agreed upon in advance with the Qualified Respondent or where Canada determines that the information is not of a proprietary nature.

7.2 Terms of Engagement with the Canadian Nuclear Safety Commission

The Canadian Nuclear Safety Commission (CNSC) is the sole authority for regulating the use of all nuclear energy and materials in Canada pursuant to the *Nuclear Safety and Control Act*. The CNSC regulates the use of nuclear energy and materials to protect health, safety, security and the environment, and to implement Canada's international commitments on the peaceful use of nuclear energy.

Given that Respondents, Qualified Respondents and Bidders may have responsibilities under future CNSC licences and could be required to participate in the CNSC licensing process, the CNSC is offering to meet with the Respondents, Qualified Respondents or Bidders to help them understand the way in which nuclear energy is regulated in Canada. The CNSC is willing to interact with Respondents, Qualified Respondents and Bidders on an individual basis or as a group. Interactions will be limited to meetings held in Ottawa, teleconferences and videoconferences.

If there is sufficient interest from Respondents, Qualified Respondents and Bidders, the CNSC will organize a one-day regulatory group workshop. This workshop would be open to all Respondents, Qualified Respondents and Bidders and would offer a wide variety of information about the CNSC, the regulatory framework and the licensing process in Canada.

Interactions at workshops or one-on-one meetings will be conducted in such a manner as to not affect the integrity of the procurement process, to ensure that all Respondents, Qualified Respondents or Bidders are treated fairly and equally, and to ensure that the regulatory independence of the CNSC is maintained.

The CNSC will conduct all meetings in accordance with the following:

- (a) An agenda for the meeting will be established by the CNSC at least five business days prior to the meeting. Prior to establishing the agenda, the CNSC will ask Respondents, Qualified Respondents, or Bidders to identify issues for discussion with the CNSC.
- (b) All meetings will be open to representatives from AECL, Natural Resources Canada and Public Works and Government Services Canada and their third party advisors, to the extent that they elect to participate.
- (c) All material provided by the CNSC to Respondents, Qualified Respondents or Bidders during meetings will be provided to all Respondents, Qualified Respondents or Bidders. Where the presentation material is of general interest to the public and other CNSC stakeholders, in the interest of transparency, the CNSC will post that material on its website.
- (d) All questions and responses at each of the meetings will be, to the extent practicable, summarized and will be made available to all Respondents, Qualified Respondents or Bidders, as well as to AECL, Natural Resources Canada and Public Works and Government Services Canada. All other information regarding the meetings (such as names of attendees) will be kept confidential.
- (e) More detailed written responses may be provided by the CNSC at the request of a Respondent, Qualified Respondents, or Bidder, or where the CNSC chooses, and will be made available to all Respondents, Qualified Respondents or Bidders, as well as to AECL, Natural Resources Canada and Public Works and Government Services Canada.
- (f) The CNSC will be prepared to provide general information on its regulatory and licensing activities. Topics could include the *Nuclear Safety and Control Act* and related regulations (including *CNSC Cost Recovery Fees Regulations*), licensing process, typical licences and conditions, the role of financial guarantees, and licence terms. The CNSC will not discuss any subject related to the GoCo procurement process, specific information on the existing licensee, nor will share any information that could prejudice future decisions of the Commission.

All interactions between Respondents, Qualified Respondents or Bidders and the CNSC are centralized and managed through the office of the Director General of the Directorate of Nuclear Cycle and Facilities Regulation. To request a meeting with the CNSC, please contact David Newland at david.newland@cnsccsn.gc.ca, or 613-995-2784.

Solicitation No. - N° de l'invitation
23240-120758/F

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
411zg

Client Ref. No. - N° de réf. du client
23240-120758

File No. - N° du dossier
411zg.23240-120758

CCC No. /N° CCC - FMS No./N° VME

7.3 Terms of Engagement with Communities and Other Stakeholders

Subject to Respondents, Qualified Respondents and Bidders complying with these Terms of Engagement, Canada will not preclude any Respondent, Qualified Respondent or Bidder from communicating or engaging with communities and other stakeholders. These may include, for example, local elected officials (except Ministers of the Crown), municipal or regional levels of government, local businesses or business associations, and any other community, local, regional or economic stakeholder.

7.4 Terms of Engagement with AECL Employees

AECL employees act in accordance with AECL's Code of Conduct and in the context of the GoCo procurement process, they are not to provide or disclose any information that may give a Respondent, Qualified Respondent or Bidder an unfair advantage or the perception of unfair advantage over any other Respondent, Qualified Respondent or Bidder.

Canada acknowledges that AECL employees, as part of their day-to-day work, may be called upon to interact with entities who may be Respondents, Qualified Respondents or Bidders in the GoCo procurement process. In that context, AECL employees and Respondents, Qualified Respondents or Bidders are advised to keep an appropriate separation between their regular business with AECL and the GoCo procurement process.

7.5 Terms of Engagement with AECL Unions

Canada will not preclude any Respondent, Qualified Respondent or Bidder from communicating and/or engaging with any union representing employees of AECL. However, the Respondent, Qualified Respondent or Bidder shall not disclose any confidential information regarding the GoCo procurement process to any such entity's representatives or employees. Furthermore, the Respondent, Qualified Respondent or Bidder is requested to disclose to Canada any confidential information it receives from the union or AECL employees.

7.6 Terms of Engagement with the Media

Respondents, Qualified Respondents or Bidders will not reveal, discuss or disclose any information to the media regarding the GoCo procurement during the procurement process, except to confirm publicly available information. If Respondents, Qualified Respondents or Bidders receive a question from the media related to non-public information on the GoCo procurement process, they shall direct the media to contact the PWGSC Media Relations Office at 819-956-2313.

8. Dispute Resolution Process

By informal discussion and good faith negotiation, each Qualified Respondent and Canada (the "Parties") shall make all reasonable efforts to resolve any dispute, controversy or claim ("Dispute") between Canada and a Qualified Respondent arising out of the detailed consultations that are part of the RFRE Stage of the GoCo procurement process.

Any Dispute between the Parties arising out of the detailed consultations shall be resolved by the following process:

- (a) Any such Dispute shall first be referred to the Qualified Respondent's Project Director or equivalent and the Director of the AECL GoCo procurement at Public Works and Government Services Canada ("PWGSC"). The representatives of the Parties will have 3 business days to resolve the Dispute;
- (b) In the event the representatives of the Parties specified in clause 8.a. above are unable to resolve the Dispute, it shall be referred to the Qualified Respondent's senior representative responsible for this initiative and the Director General responsible for the AECL GoCo procurement at PWGSC, who will have 3 business days to resolve the Dispute;
- (c) In the event the representatives of the Parties specified in clause 8.b. above are unable to resolve the Dispute, it shall be referred to the Qualified Respondent's CEO or equivalent and the Associate/Assistant Deputy Minister, Acquisitions Branch at PWGSC who will have 5 business days to resolve the Dispute;
- (d) In the event the representatives of the Parties specified in clause 8.c. above are unable to resolve the Dispute, the Contracting Authority shall, within 5 business days render a written decision which decision shall include a detailed description of the Dispute and the reasons supporting the Contracting Authority's decision. The Contracting Authority shall deliver a signed copy thereof to the Qualified Respondent; and
- (e) The Parties may, by mutual consent, agree to bypass levels in the dispute resolution process or otherwise agree on the timing of the dispute resolution process.

ANNEX K: DRAFT TECHNICAL CRITERIA FOR THE RFP BID EVALUATION

As noted in the Request for Response Evaluation (RFRE) Part 1, clause 1.7.1., the objective of this procurement is to procure the services of a Contractor that will significantly transform AECL's Nuclear Laboratories to ensure that the SOC leverages the capabilities and resources to successfully: deliver nuclear S&T - related products and services to government and third - party customers, and fulfill decommissioning and waste management needs, while containing and reducing costs and financial risks for Canadian taxpayers over time. The technical bid evaluation criteria and their relative weightings in the anticipated Request for Proposal (RFP) are expected to reflect this procurement objective.

Canada anticipates that the RFP Bid evaluation will be based on a point-rated scale, comprised of technical and financial evaluation criteria, as well as a risk and feasibility evaluation of target cost bids. The technical bid evaluation is expected to be based on several criteria areas set out below, listed in descending order of importance with the first four weighted relatively equal to one another and weighted more heavily than the remaining four areas. The financial evaluation and risk and feasibility evaluation components of the Bid are anticipated to also be evaluated on a point-rated scale, however, their weighting is anticipated to be less than the overall weighting of the technical evaluation criteria areas.

It is anticipated that further information on the technical evaluation criteria, the financial evaluation criteria, as well as the risk and feasibility evaluation criteria will be provided to Qualified Respondents in the Draft RFP that are anticipated to be released as part of the RFRE detailed consultations (refer to RFRE Annex J). These will be subject to discussions with Qualified Respondents during the detailed consultations and are therefore subject to change by Canada. The notional technical evaluation criteria areas are as follows:

1. Key Personnel and Management Approach
2. Approach to Decommissioning and Waste Management
3. Technical Approach to target cost projects (Whiteshell and Nuclear Power Demonstration Reactor)
4. Approach to Science and Technology
5. Approach to Infrastructure Management and Site/Nuclear Operations
6. Bidder experience and past performance
7. Project management
8. Approach to Health, Safety, Security and the Environment and Quality Assurance