

<p>RETURN BIDS TO: RETOURNER LES SOUMISSIONS À:</p> <p>Bid Receiving - Environment and Climate Change Canada / Réception des soumissions – Environnement et changement climatique Canada</p> <p>Electronic Copy: soumissionsbids@ec.gc.ca</p> <p>BID SOLICITATION DEMANDE DE SOUMISSIONS</p> <p>PROPOSAL TO: ENVIRONMENT AND CLIMATE CHANGE CANADA</p> <p>We offer to perform or provide to Canada the services detailed in the document including any attachments and annexes, in accordance with the terms and conditions set out or referred to in the document, at the price(s) provided.</p> <p>SOUMISSION À: ENVIRONNEMENT ET CHANGEMENT CLIMATIQUE CANADA</p> <p>Nous offrons d'effectuer ou de fournir au Canada, aux conditions énoncées ou incluses par référence dans le document incluant toutes pièces jointes et annexes, les services détaillés dans le document, au(x) prix indiqué(s).</p>	<p>Title – Titre Study on Cost of Hydrogen Production for Power Generation in Canada</p>	
	<p>EC Bid Solicitation No. /SAP No. – N° de la demande de soumissions EC / N° SAP 5000075825</p>	
	<p>Date of Bid solicitation (YYYY-MM-DD) – Date de la demande de soumissions (AAAA-MM-JJ) 2023-10-31</p>	
	<p>Bid Solicitation Closes (YEAR-MM-DD) - La demande de soumissions prend fin (AAAA-MM-JJ) at – à 2:00 P.M. on – le 2023-11-15</p>	<p>Time Zone – Fuseau horaire Eastern Standard Time (EST)</p>
	<p>F.O.B – F.A.B Destination</p>	
	<p>Address Enquiries to - Adresser toutes questions à Carolynne Chénier carolyne.chenier@ec.gc.ca</p>	
	<p>Delivery Required (YEAR-MM-DD) – Livraison exigée (AAAA-MM-JJ) See herein</p>	
	<p>Destination of Services / Destination des services National Capital Region (NCR)</p>	
	<p>Security / Sécurité There is no security requirement associated with this requirement.</p>	
	<p>Vendor/Firm Name and Address - Raison sociale et adresse du fournisseur/de l'entrepreneur (Insert-Ajouter)</p>	
<p>Name and title of person authorized to sign on behalf of Vendor/Firm: (type or print) / Nom et titre de la personne autorisée à signer au nom du fournisseur/de l'entrepreneur (taper ou écrire en caractères d'imprimerie)</p>		
<p>Signature</p>	<p>Date</p>	



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PART 1 – GENERAL INFORMATION

1.1 Security Requirement

There is no security requirement applicable to the requirement.

1.2 Statement of Work

B4007T (2014-06-26)

The Work to be performed is detailed under Annex A of the resulting contract clauses

1.3 Debriefings

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



PART 2 - BIDDER INSTRUCTIONS

2.1. Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the PSPC/PWGSC *Standard Acquisition Clauses and Conditions Manual* issued by Public Works and Government Services Canada.

Bidders who submit a bid agree to be bound by the instructions, clauses and conditions of the bid solicitation and accept the clauses and conditions of the resulting contract.

The 2003 (2023-06-08), Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

The standard instructions 2003 are modified as follows:

Under “Text” at 02:

Delete: “Procurement Business Number”

Insert: “Deleted”

At Section 02 Procurement Business Number

Delete: In its entirety

Insert: “Deleted”

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

Delete: In its entirety

Insert: “send its bid only to Environment and Climate Change Canada as specified on page 1 of the bid solicitation or to the address specified in the bid solicitation;”

At Section 06 Late Bids:

Delete: “PWGSC”

Insert: “Environment and Climate Change Canada”

At Section 07 Delayed Bids:

Delete: “PWGSC”

Insert: “Environment and Climate Change Canada”

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

Delete: In its entirety

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

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

Delete: In their entirety

Insert: “Deleted”

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

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

Insert: “Deleted”

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



Delete: In its entirety

Insert: "Deleted"

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

Delete: "sixty (60) days"

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

2.2 Submission of Bids

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

2.3 Former Public Servant – Competitive Bid

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

Definitions

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

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

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

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

Former Public Servant in Receipt of a Pension



As per the above definitions, is the Bidder a FPS in receipt of a pension? **Yes () No ()**
If so, the Bidder must provide the following information, for all FPSs in receipt of a pension, as applicable:

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

By providing this information, Bidders agree that the successful Bidder's status, with respect to being a former public servant in receipt of a pension, will be reported on departmental websites as part of the published proactive disclosure reports in accordance with [Contracting Policy Notice: 2019-01](#) and the [Guidelines on the Proactive Disclosure of Contracts](#).

Work Force Adjustment Directive

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

If so, the Bidder must provide the following information:

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

2.4 Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than six (6) calendar days before the bid closing date. Enquiries received after that time may not be answered.

Bidders should reference as accurately as possible the numbered item of the bid solicitation to which the enquiry relates. Care should be taken by bidders to explain each question in sufficient detail in order to enable Canada to provide an accurate answer. Technical enquiries that are of a proprietary nature must be clearly marked "proprietary" at each relevant item. Items identified as "proprietary" will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the question(s) or may request that the Bidder do so, so that the proprietary nature of the question(s) is eliminated and the enquiry can be answered to all bidders. Enquiries not submitted in a form that can be distributed to all bidders may not be answered by Canada.

2.5 Applicable Laws

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

Bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their bid, by deleting the name of the Canadian



province or territory specified and inserting the name of the Canadian province or territory of their choice. If no change is made, it acknowledges that the applicable laws specified are acceptable to the bidders.

2.6 Bid Challenge and Recourse Mechanisms

- a) Several mechanisms are available to potential suppliers to challenge aspects of the procurement process up to and including contract award.
- b) Canada encourages suppliers to first bring their concerns to the attention of the Contracting Authority. Canada's [Buy and Sell](#) website, under the heading [Bid Challenge and Recourse Mechanisms](#)" contains information on potential complaint bodies such as:

Office of the Procurement Ombudsman (OPO)
Canadian International Trade Tribunal (CITT)

- c) Suppliers should note that there are strict deadlines for filing complaints, and the time periods vary depending on the complaint body in question. Suppliers should therefore act quickly when they want to challenge any aspect of the procurement process.

2.7 Basis for Canada's Ownership of Intellectual Property

Environment and Climate Change Canada has determined that any intellectual property rights arising from the performance of the Work under the resulting contract will belong to Canada, for the following reasons, as set out in the [Policy on Title to Intellectual Property Arising Under Crown Procurement Contracts](#):

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



PART 3 - BID PREPARATION INSTRUCTIONS

3.1 Bid Preparation Instructions

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

Section I: Technical Bid (1 soft copy in PDF format)

Section II: Financial Bid (1 soft copy in PDF format)

Section III: Certifications (1 soft copy in PDF format)

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

Canada requests that bidders use a numbering system that corresponds to the bid solicitation.

Note for electronic submission of bids:

In order to be considered, bids must be received by the date and time indicated on the cover page to herein as the "Closing Date." Bids received after the Closing Date will be considered non-responsive and will not be considered for contract award. Bids submitted by email must be submitted ONLY to the following email address:

Email Address:	soumissionsbids@ec.gc.ca
Attention:	Carolyne Chénier
Solicitation	5000075825
Number:	

Bidders should ensure that their name, address, Closing Date of the solicitation and Solicitation Number are clearly indicated in the body of their email. Bids and supporting information may be submitted in either English or French.

The total size of the email, including all attachments, must be less than 15 megabytes (MB). It is each Bidder's responsibility to ensure that the total size of the email does not exceed this limit.

Bids sent by fax will not be accepted.

It is important to note that emails systems can experience systematic delays and, at times, large attachments may cause systems to hold or delay transmission of emails. It is solely the Bidder's responsibility to ensure that the Contracting Authority receives a bid on time, in the mailbox that has been identified for bid receipt purposes. Date stamps for this form of transmission are not acceptable.

Section I: Technical Bid



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

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

Part 4, Evaluation Procedures, contains additional instructions that bidders should consider when preparing their technical bid.

Section II: Financial Bid

- 1.1** Bidders must submit their financial bid in accordance with the Financial Bid Presentation Sheet detailed in Attachment 1 to Part 3
- 1.2** Bidders must submit their financial bid in Canadian funds and in accordance with the Financial Bid Presentation Sheet detailed in Attachment 1 to Part 3. The total amount of Applicable Taxes must be shown separately.
- 1.3** Bidders must submit their (insert, as applicable: “price” OR “prices”, “and”, “rate” OR “rates”) FOB destination; Canadian customs duties and excise taxes included, as applicable; and Applicable Taxes excluded.

1.4 Price Breakdown

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

- (a) Professional fees: For each individual and (or) labor category to be assigned to the Work, the bidders should indicate: i) the firm hourly rate or the firm daily rate, inclusive of overhead and profit; and ii) the estimated number of hours or days, as applicable. The bidders should indicate the number of hours in one working day.

The professional fees must include the total estimated cost of all travel and living expenses that may need to be incurred for:

- (i) Work described in Part 7, Resulting Contract of the bid solicitation required to be performed within the “National Capital Region (NCR) NCR is defined in the *National Capital Act*, R.S.C. 1985, c. N-4, S.2. *The National Capital Act* is available on the Justice Website: [http://laws-lois.justice.gc.ca/eng/acts/N-4/;](http://laws-lois.justice.gc.ca/eng/acts/N-4/))
 - (ii) travel between the successful bidder’s place of business and the NCR; and
 - (iii) the relocation of resources

to satisfy the terms of any resulting contract. These expenses cannot be charged directly and separately from the professional fees to any contract that may result from the bid solicitation.



- (b) Travel and Living Expenses (if applicable): The bidders should indicate the number of trips and the number of days for each trip, the cost, destination and purpose of each journey, together with the basis of these costs without exceeding the meal, private vehicle and incidental expenses provided in Appendices B, C and D of the "<http://www.njc-cnm.gc.ca/directive/travel-voyage/index-eng.php>" *National Joint Council Travel Directive* and with the other provisions of the directive referring to "traveler's", rather than those referring to "employees".
- (c) Subcontracts (if applicable): The bidders should identify all of the proposed subcontractors and provide in their financial bid for each one a price breakdown.
- (d) Other Direct Charges (if applicable): The bidders should identify all of the categories of other direct charges anticipated, such as long-distance communications and rentals, providing the pricing basis for each and explaining the relevance to the work described in Part 7 of the bid solicitation.
- (e) Applicable Taxes: The bidders should indicate the Applicable Taxes separately.

Section III: Certifications

Bidders must submit the certifications required under Part 5, and, as applicable, any associated additional information.



**ATTACHMENT “1” TO PART 3 -
FINANCIAL BID PRESENTATION SHEET**

The Bidder must complete this Financial Bid Presentation and include it in its financial bid.

Milestone (A)	Deliverables (B)	Due date on or before (C)	Subtotal (D)
1	Tasks 3.1 & 3.2	4 weeks After Contract Award Date	
2	Tasks 3.3 & 3.4	16 weeks After Contract Award Date	
3	Tasks 3.5 & 3.6	19 weeks After Contract Award Date	
		Subtotal (E)	
		Taxes (F)	
		Total (G)	

The inclusion of volumetric data in this document does not represent a commitment by Canada that Canada’s future usage of the services described in the bid solicitation will be consistent with these data.



PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

4.1 Evaluation Procedures

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

4.2 Technical Evaluation

4.2.1 Joint Venture Experience

a) Where the Bidder is a joint venture with existing experience as that joint venture, it may submit the experience that it has obtained as that joint venture.

Example: A bidder is a joint venture consisting of members L and O. A bid solicitation requires that the bidder demonstrate experience providing maintenance and help desk services for a period of 24 months to a customer with at least 10,000 users. As a joint venture (consisting of members L and O), the bidder has previously done the work. This bidder can use this experience to meet the requirement. If member L obtained this experience while in a joint venture with a third party N, however, that experience cannot be used because the third party N is not part of the joint venture that is bidding.

b) A joint venture bidder may rely on the experience of one of its members to meet any given technical criterion of this bid solicitation.

Example: A bidder is a joint venture consisting of members X, Y and Z. If a solicitation requires: (a) that the bidder have 3 years of experience providing maintenance service, and (b) that the bidder have 2 years of experience integrating hardware with complex networks, then each of these two requirements can be met by a different member of the joint venture. However, for a single criterion, such as the requirement for 3 years of experience providing maintenance services, the bidder cannot indicate that each of members X, Y and Z has one year of experience, totaling 3 years. Such a response would be declared non-responsive.

c) Joint venture members cannot pool their abilities with other joint venture members to satisfy a single technical criterion of this bid solicitation. However, a joint venture member can pool its individual experience with the experience of the joint venture itself. Wherever substantiation of a criterion is required, the Bidder is requested to indicate which joint venture member satisfies the requirement. If the Bidder has not identified which joint venture member satisfies the requirement, the Contracting Authority will provide an opportunity to the Bidder to submit this information during the evaluation period. If the Bidder does not submit this information within the period set by the Contracting Authority, its bid will be declared non-responsive.

Example: A bidder is a joint venture consisting of members A and B. If a bid solicitation requires that the bidder demonstrate experience providing resources for a minimum number of 100 billable days, the bidder may demonstrate that experience by submitting either:

- o Contracts all signed by A;
- o Contracts all signed by B; or



- o Contracts all signed by A and B in joint venture, or
- o Contracts signed by A and contracts signed by A and B in joint venture, or
- o Contracts signed by B and contracts signed by A and B in joint venture.

that show in total 100 billable days.

d) Any Bidder with questions regarding the way in which a joint venture bid will be evaluated should raise such questions through the Enquiries process as early as possible during the bid solicitation period.

4.2.2 Mandatory Technical Criteria

4.2.2.1 Refer to Attachment 1 to Part 4.

4.2.3 Point Rated Technical Criteria

4.2.3.1 Refer to Attachment 2 to Part 4.

4.3.2 Evaluation of Price

The price of the bid will be evaluated in Canadian dollars, the Applicable Taxes excluded, Canadian customs and excise taxes included.

For evaluation purposes only, the price of the bid will be determined as follows:

4.3.2.1 The volumetric data included in the Financial Bid Presentation Sheet detailed in Attachment 1 to Part 3 are provided for bid evaluated price determination purposes only. They are not to be considered as a contract guarantee.

4.3.2.2 For bid evaluation and contractor(s) selection purposes only, the evaluated price of a bid will be determined in accordance with the Financial Bid Presentation Sheet detailed in Attachment 1 to Part 3.

4.4 Basis of Selection

4.4.1 Highest Combined Rating of Technical Merit (70%) and Price (30%)

1. To be declared responsive, a bid must:
 - a. comply with all the requirements of the bid solicitation; and
 - b. meet all mandatory criteria; and
 - c. obtain the required minimum of 70 points overall for the technical evaluation criteria which are subject to point rating.
The rating is performed on a scale of 100 points.
2. Bids not meeting (a) or (b) or (c) will be declared non-responsive.
3. The selection will be based on the highest responsive combined rating of technical merit and price. The ratio will be 80 % for the technical merit and 20% for the price.
4. To establish the technical merit score, the overall technical score for each responsive bid will be determined as follows: total number of points obtained / maximum number of points available multiplied by the ratio of 80%.



5. To establish the pricing score, each responsive bid will be prorated against the lowest evaluated price and the ratio of 20%.
6. For each responsive bid, the technical merit score and the pricing score will be added to determine its combined rating.
7. Neither the responsive bid obtaining the highest technical score nor the one with the lowest evaluated price will necessarily be accepted. The responsive bid with the highest combined rating of technical merit and price will be recommended for award of a contract.

The table below illustrates an example where all three bids are responsive and the selection of the contractor is determined by a 60/40 ratio of technical merit and price, respectively. The total available points equals 135 and the lowest evaluated price is \$45,000 (45).

Basis of Selection - Highest Combined Rating Technical Merit (60%) and Price (40%)

		Bidder 1	Bidder 2	Bidder 3
Overall Technical Score		115/135	89/135	92/135
Bid Evaluated Price		\$55,000.00	\$50,000.00	\$45,000.00
Calculations	Technical Merit Score	$115/135 \times 60 = 51.11$	$89/135 \times 60 = 39.56$	$92/135 \times 60 = 40.89$
	Pricing Score	$45/55 \times 40 = 32.73$	$45/50 \times 40 = 36.00$	$45/45 \times 40 = 40.00$
Combined Rating		83.84	75.56	80.89
Overall Rating		1st	3 rd	2nd



**ATTACHMENT “1” TO PART 4,
MANDATORY TECHNICAL CRITERIA AND POINT RATED TECHNICAL CRITERIA**

Mandatory Technical Criteria

The bid must meet the mandatory technical criteria specified below. The Bidder must provide the necessary documentation to support compliance with this requirement.

Bids which fail to meet the mandatory technical criteria will be declared non-responsive. Each mandatory technical criterion should be addressed separately.

Bid Preparation Instructions:				
Write beside each of the criterion the relevant page number(s) from your bid which addresses the requirement identified in the criteria.				
Corporate Mandatory Technical Criteria (CMT)				
No.	Mandatory Technical Criterion	Bid Preparation Instructions	Cross-Reference to proposal (Indicate page #)	Met (Pass/Fail)
CMT1	<p>The Bidder must demonstrate in their proposal, by submitting two (2) corporate reference contracts, their ability to supply a minimum of one (1) Team Lead / Project Manager resource, (1) Project Engineer resource and (1) Project Financial Analyst for work performed that is similar in size and nature to that described in Section 2.0 of the Statement of Work Annex A.</p> <p>The contract must have been initiated within the last ten (10) years prior to the bid closing date and all must be at least three (3) months in durations.</p>	<p>For each reference contract, the following information must be provided:</p> <ul style="list-style-type: none"> • Contract Name; • Contract Number (if available) • Client Organization • Description of the contracts objectives, issues, description of the work performed • Start Date / End Date; • Reference Contact name; and • Reference Contact phone number and e-mail. 		
CMT2	<p>Bidder must demonstrate in their proposal, by submitting their work plan, their comprehension and understanding of the scope.</p>	<p>Bidder's Work plan must include the following sections within their bid proposal:</p> <ul style="list-style-type: none"> • Approach • Methodology • List of Data Sources to be used. • Tools to be used. 		



		<ul style="list-style-type: none"> • Task Schedule • Personnel Deployment Schedule 		
Resource Mandatory Technical Criteria (RM)				
No.	Mandatory Technical Criterion	Bid Preparation Instructions	Cross-Reference to proposal (Indicate page #)	Met (Pass/Fail)
	Qualification of Project Team members			
RM1	<p>The proposed Team Lead (TL)/ Project Manager (PM) must have at least fifteen (15) years of professional experience including in PM role in the last twenty (20) years from the date of bid closing, not including education, for work performed that is similar in size and nature to that described in Section 2.0 of the Statement of Work Annex A.</p> <p>Bidder must demonstrate this requirement by submitting reference contracts.</p>	<p>For each referenced contract, the following information must be provided:</p> <ul style="list-style-type: none"> • Contract Name; • Contract Number (if available) • Client Organization • Description of the contracts objectives, issues, description of the work performed • Start Date / End Date; • Reference Contact name; and • Reference Contact phone number and e-mail. 		
RM2	<p>The proposed Project Engineer must have at least seven (7) years of progressive professional experience in engineering in the last fifteen (15) years from date of bid closing, not including education, for work performed that is similar in size and nature to that described in Section 2.0 of the Statement of Work Annex A.</p>	<p>For each referenced contract, the following information must be provided:</p> <ul style="list-style-type: none"> • Contract Name; • Contract Number (if available) • Client Organization • Description of the contracts objectives, issues, description of the work performed • Start Date / End Date; • Reference Contact name; and • Reference Contact phone number and e-mail. 		



	Bidder must demonstrate this requirement by submitting reference contracts.			
RM3	<p>The proposed Project Financial Analyst must have at least seven (7) years of progressive professional experience in financial analysis in the last fifteen (15) years from date of bid closing, not including education, for work performed that is similar in size and nature to that described in Section 2.0 of the Statement of Work Annex A.</p> <p>Bidder must demonstrate this requirement by submitting reference contracts.</p>	<p>For each reference contract, the following information must be provided:</p> <ul style="list-style-type: none">• Contract Name;• Contract Number (if available)• Client Organization• Description of the contracts objectives, issues, description of the work performed• Start Date / End Date;• Reference Contact name; and• Reference Contact phone number and e-mail.		



Point Rated Technical Criteria

Bids which meet all the mandatory technical criteria will be evaluated and scored as specified in the tables inserted below.

Bids which fail to obtain the required minimum number of points specified will be declared nonresponsive. Each point rated technical criterion should be addressed separately.

NOTE: Projects may be used to demonstrate requirements in more than one criteria

Bid Preparation Instructions:

Write beside each of the criterion the relevant page number(s) from your bid which addresses the requirement identified in the criteria.

Corporate Point Rated Technical Criteria (CR) and Scores

For the purpose of the point rated technical criteria specified below the experience of the Bidder and its affiliates will be considered.

No.	Point Rated Technical Criterion	Bid Instructions	Scoring Methodology	Cross-Reference to proposal (Indicate page #)	Score
CR1	Bidder's experience	The bidder will earn points for experience over and above that required for mandatory criteria CMT1.	3 references = 5 points 4 references = 10 points 5 or more = 15 points Max points = 15		/15
CR2	Bidder's ability to add value	Approach and Methodology sections of the Bidder's Work Plan must be assessed with a critical focus on their ability to identify the critical regional factors determining the cost of hydrogen production, identify cost barriers and to present strategies for reduction of hydrogen production cost.	Points will be awarded as follows: <ul style="list-style-type: none"> • 14 pts: For presenting a methodology for estimating the production cost that considers major factors affecting the cost of hydrogen production and to present strategies for reduction of hydrogen production cost • 10 pts: For presenting a systematic approach with limited insights. 		/14



			<ul style="list-style-type: none"> • 6 pts: For presenting limited approach with limited insights. • 0 pt: For not generating insights and adding value. 		
Resource Point Rated Technical Criteria (RR) and Scores Each proposed resource will be evaluated against the following criteria.					
No.	Point Rated Technical Criterion	Bid Instructions	Scoring Methodology	Cross-Reference to proposal (Indicate page #)	Score
RR1	<p>The proposed Team Lead/Project Manager must have at least five (5) years of relevant experience in the last ten (10) years from date of bid closing in conducting activities directly related to the following:</p> <ul style="list-style-type: none"> • technology assessment with focus, on technology readiness level (TRL), energy and process efficiency, capital cost, operation and maintenance cost, and technology life, • project financial analysis with focus on parameters, such as NPV, IRR, discount rate, and payback period, • project management, including project initiation, planning, execution, monitoring and 	<p>For each reference contract, the following information must be provided:</p> <ul style="list-style-type: none"> • Contract Name; • Contract Number (if available) • Client Organization • Description of the contracts objectives, issues, description of the work performed • Start Date / End Date; • Reference Contact name; and • Reference Contact phone number and e-mail. 	<p>Points will be awarded as follows:</p> <ul style="list-style-type: none"> • 2 pts for showing at least (5) years of relevant experience in the last ten (10) years from date of bid closing in conducting activities directly related to technology assessment with focus, on technology readiness level (TRL), energy and process efficiency, capital cost, operation and maintenance cost, and technology life • 2 pts for showing at least (5) years of relevant experience in the last ten (10) years from date of bid closing in conducting activities directly related to project financial analysis with focus on parameters, such as NPV, IRR, discount rate, and payback period • 2 pts for showing at least (5) years of relevant experience in the last ten (10) years from date of bid closing in conducting activities directly related to project management, including project initiation, planning, 		/6



	control, and closure. Bidder must demonstrate this requirement by submitting reference Contracts		execution, monitoring and control, and closure		
RR2	The Team Lead/ Project Manager Competency education	Bidder must demonstrate this requirement by submitting a copy of their diploma.	Points will be awarded as follows: <ul style="list-style-type: none"> • 5 pts: Ph.D. in a relevant engineer or science discipline as highest educational accomplishment. • 3 pts: Masters degree in a relevant engineer or science discipline as highest educational accomplishment. • 1 pt: Bachelor's degree in a relevant engineering or science discipline as highest educational accomplishment 		/5
RR3	The proposed Project Engineer must have experience in the following: <ul style="list-style-type: none"> • Blue and green, hydrogen production in Canada • Storage technologies (CCS and/or hydrogen) • Technology risk assessment with focus on engineering process, process equipment material, handling of 	For each reference contract, the following information must be provided: <ul style="list-style-type: none"> • Contract Name; • Contract Number (if available) • Client Organization • Description of the contracts objectives, issues, description of the work performed • Start Date / End Date; • Reference Contact name; and • Reference Contact phone 	Points will be awarded as follows: <ul style="list-style-type: none"> • 2 pts for showing experience in the Blue and green, hydrogen production in Canada • 2 pts for showing experience in the Storage technologies (CCS and/or hydrogen) • 2 pts for showing experience in the Technology risk assessment with focus on engineering process, process equipment material, handling of hazardous substances 		/6



	<p>hazardous substances.</p> <p>Bidder must demonstrate this requirement by submitting reference contracts.</p>	<p>number and e-mail.</p>			
RR4	<p>Project Engineer education</p>	<p>Bidder must demonstrate this requirement by submitting a copy of their diploma.</p>	<p>Points will be awarded as follows:</p> <ul style="list-style-type: none"> • 5 pts: Ph.D in a relevant engineer or science discipline as highest educational accomplishment.. • 3 pts: Masters degree in a relevant engineer or science discipline as highest educational accomplishment. • 1 pt: Bachelor's degree in a relevant engineering or science discipline as highest educational accomplishment 		/5
RR5	<p>The proposed Project Financial Analyst must have at least five (5) years of relevant experience in the last ten (10) years from date of bid closing in the following:</p> <ul style="list-style-type: none"> • Project financial analysis. • Financial risk analysis with focus, on debt-to-capital ration and debt-to-equity ratio. • Cost benefit analysis for projects involving any 	<p>For each reference contract, the following information must be provided:</p> <ul style="list-style-type: none"> • Contract Name; • Contract Number (if available) • Client Organization • Description of the contracts objectives, issues, description of the work performed • Start Date / End Date; • Reference Contact name; and • Reference Contact phone 	<p>Points will be awarded as follows:</p> <ul style="list-style-type: none"> • 2 pts for showing at least five (5) years of relevant experience in the last ten (10) years from date of bid closing in Project financial analysis. • 2 pts for showing at least five (5) years of relevant experience in the last ten (10) years from date of bid closing in Financial risk analysis with focus, on debt-to-capital ration and debt-to-equity ratio. • 2 pts for showing at least five (5) years of relevant experience in 		/6



	<p>relevant technologies.</p> <p>Bidder must demonstrate this requirement by submitting reference contracts.</p>	<p>number and e-mail.</p>	<p>the last ten (10) years from date of bid closing in Cost benefit analysis for projects involving any relevant technologies.</p>		
RR6	<p>Project Financial Analyst education</p>	<p>Bidder must demonstrate this requirement by submitting a copy of their diploma.</p>	<p>Points will be awarded as follows:</p> <ul style="list-style-type: none"> • 5 pts: Ph.D in a relevant Financial discipline as highest educational accomplishment.. • 3 pts: Masters degree in a relevant financial discipline as highest educational accomplishment. • 1 pt: Bachelor's degree in a relevant financial discipline as highest educational accomplishment 		/5
<p>Total Score: (Minimum Passing Mark (60%): points)</p>				/37	/62



PART 5 - CERTIFICATIONS AND ADDITIONAL INFORMATION

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

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

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

5.1. Certifications Required with the Bid

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

5.1.1 Integrity Provisions - Declaration of Convicted Offences

In accordance with the Integrity Provisions of the Standard Instructions, all bidders must provide with their bid, **if applicable**, the declaration form available on the [Forms for the Integrity Regime](#) website, to be given further consideration in the procurement process.

5.1.2 Additional Certifications Required with the Bid

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

5.2 Certifications Precedent to Contract Award and Additional Information

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

5.2.1 Integrity Provisions - Required Documentation

In accordance with the section titled Information to be provided when bidding, contracting or entering into a real property agreement of the [Ineligibility and Suspension Policy](#), the Bidder must provide the required documentation, as applicable, to be given further consideration in the procurement process.



5.2.2 Federal Contractors Program for Employment Equity - Bid Certification

By submitting a bid, the Bidder certifies that the Bidder, and any of the Bidder's members if the Bidder is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity [FCP Limited Eligibility to Bid](#)" list available from Employment and Social Development Canada (ESDC) - Labor's website.

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

5.2.3 Additional Certifications Precedent to Contract Award

5.2.3.1 Status and Availability of Resources

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

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

5.2.3.2 Education and Experience

SACC Manual clause [A3010T](#) (2010-08-16), Education and Experience



PART 6 - RESULTING CONTRACT (*at contract award, delete this line*)

The following clauses and conditions apply to and form part of any contract resulting from the bid solicitation. (*at contract award, delete this sentence and add the title of the requirement*)

Title: (*insert only at contract award*)

6.1 Security Requirement

6.1.1 There is no security requirement applicable to the Contract.

6.2 Statement of Work

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

6.3 Standard Clauses and Conditions

All clauses and conditions identified in the Contract by number, date and title are set out in the PSPC/PWGSC *Standard Acquisition Clauses and Conditions Manual* issued by Public Works and Government Services Canada.

6.3.1 General Conditions

2010B (2022-12-01), General Conditions - Professional Services (Medium Complexity) apply to and form part of the Contract.

General conditions 2010B is modified as follows:

At Section 12 Transportation Costs

Delete: In its entirety

Insert: "Deleted"

At Section 13 Transportation Carriers" Liability

Delete: In its entirety.

Insert: "Deleted"

At Section 18, Confidentiality:

Delete: In its entirety

Insert: "Deleted"

Insert Subsection: "36 Liability"

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



A. For professional services requirements where the deliverables are copyrightable works:

At Section 19 Copyright

Delete: In its entirety

Insert:

1. In this section:
"Material" means anything that is created or developed by the Contractor as part of the Work under the Contract, and in which copyright subsists.
"Background Information" means all Intellectual Property that is not Foreground Information that is incorporated into the Work or necessary for the performance of the Work and that is proprietary to or the confidential information of the Contractor, its subcontractors or any other third party;
"Foreground Information" means all Intellectual Property first conceived, developed, produced or reduced to practice as part of the Work under the Contract;
2. Material that is created or developed by the Contractor as part of the Work under the Contract belongs to Canada. The Contractor must incorporate the copyright symbol and either of the following notices, as appropriate: © His Majesty the King in right of Canada (year) or © Sa Majesté le Roi du chef du Canada (année).
3. At the request of the Contracting Authority, the Contractor must provide to Canada, at the completion of the Work or at such other time as the Contracting Authority may require, a written permanent waiver of moral rights as defined in the [Copyright Act](#), R.S., 1985, c. C-42, in a form acceptable to the Contracting Authority, from every author that contributed to the Work. If the Contractor is an author, the Contractor permanently waives the Contractor's moral rights.
4. All Intellectual Property Rights in the Material belongs to Canada as soon as they come into existence. The Contractor has no right in or to any such Intellectual Property except any right that may be granted in writing by Canada.
5. The Contractor also grants to Canada a non-exclusive, perpetual, irrevocable, worldwide, fully-paid and royalty-free license to use the Background Information to the extent that this information is required by Canada to exercise its rights to use the Material. This license cannot be restricted in any way by the Contractor providing any form of notice to the contrary, including the wording on any shrink-wrapped license attached to any deliverable.
6. The Crown believes that aboriginal traditional knowledge (ATK) should remain the property of those who hold it and that the knowledge holders themselves should have a say in how their knowledge is captured and used. The Contractor will make every effort to ensure ATK is captured accurately and in accordance with the knowledge holder's understanding and expectations. If required, the Contractor will enter into an agreement with the holder(s) of the ATK wherein any intellectual property associated with the capture of their ATK will be vested in the knowledge holder(s) themselves. To this end, all transcripts, notes, audio and video recordings, or any other media used to capture the ATK will be provided back to the knowledge holder(s) at the completion of this project. The Contractor will obtain a suitable license to the ATK from the originating party and hereby grants to the Crown a non-exclusive, perpetual, irrevocable, world-wide, fully-paid and royalty-free license to exercise all intellectual property rights in the ATK that vest in the Owner for the Crown's non-commercial purposes. For cases where the Contractor is not the ATK knowledge holder, the Contractor will not retain any ongoing rights to use the ATK.



7. No restrictions other than those set out in this section must apply to Canada's use of the Material or of translated versions of the Material.

6.3.2 Supplemental General Conditions

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

4007 (2022-12-01) Canada to own Intellectual Property Rights in Foreground

6.3.3 Specific Person(s)

The Contractor must provide the services of the following person(s) to perform the Work as stated in the Contract: _____ (insert name(s) of person(s)).

6.4 Term of Contract

6.4.1 Period of the Contract

The period of the Contract is from date of Contract to March 31, 2024 inclusive.

6.5 Authorities

6.5.1 Contracting Authority

The Contracting Authority for the Contract is:

Name: Carolyne Chénier
Title: Procurement Officer
Environment and Climate Change Canada
Procurement and Contracting Division
Address: 351 St-Joseph Blvd. Gatineau, QC K1A 0H3

E-mail address: Carolyne.chenier@ec.gc.ca

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

6.5.2 Technical Authority [to be completed at contract award]

The Technical Authority for the Contract is:

Name: _____
Title: _____
Organization: _____
Address: _____

Telephone: ____ - ____ - ____
Facsimile: ____ - ____ - ____



E-mail address: _____

The Technical Authority named above is the representative of the department or agency for whom the Work is being carried out under the Contract and is responsible for all matters concerning the technical content of the Work under the Contract. Technical matters may be discussed with the Technical Authority; however, the Technical Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

6.5.4 Contractor's Representative [to be completed at contract award]

Name: _____
Title: _____
(Legal & Operating Company Name): _____
Address: _____

Telephone: ___ - ___ - _____
Facsimile: ___ - ___ - _____
E-mail address: _____

6.6 Proactive Disclosure of Contracts with Former Public Servants

By providing information on its status, with respect to being a former public servant in receipt of a [Public Service Superannuation Act](#) (PSSA) pension, the Contractor has agreed that this information will be reported on departmental websites as part of the published proactive disclosure reports, in accordance with [Contracting Policy Notice: 2019-01](#) of the Treasury Board Secretariat of Canada.

6.7 Payment

6.7.1 Basis of Payment

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid a firm unit price as specified in Annex B for a cost of \$_____ (insert the amount at contract award). Customs duties are included and Applicable Taxes are extra.

Canada will not pay the Contractor for any design changes, modifications or interpretations of the Work unless they have been approved, in writing, by the Contracting Authority before their incorporation into the Work.

6.7.2 Limitation of Price

C6000C (2017-08-17) Limitation of Price

6.7.3 Time Verification

C0711C (2008-05-12), Time Verification



6.8 Invoicing Instructions

6.8.1 Milestone Payments

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

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

7.8.2 Schedule of Milestones

The schedule of milestones for which payments will be made in accordance with the Contract is detailed in Annex B.

6.8.3 SACC Manual Clauses

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

6.9 Certifications and Additional Information

6.9.1 Compliance

Unless specified otherwise, the continuous compliance with the certifications provided by the Contractor in its bid or precedent to contract award, and the ongoing cooperation in providing additional information are conditions of the Contract and failure to comply will constitute the Contractor in default. Certifications are subject to verification by Canada during the entire period of the Contract.

6.10 Applicable Laws [to be completed at contract award]

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

6.11 Priority of Documents [to be completed at contract award]

If there is a discrepancy between the wording of any documents that appear on the list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.

- (a) the Articles of Agreement;
- (b) the supplemental general conditions 4007 (2022-12-01) Canada to own Intellectual Property Rights in Foreground;



- (c) the general conditions 2010B (2022-12-01), General Conditions - Professional Services (Medium Complexity)
- (d) Annex A, Statement of Work;
- (e) Annex B, Basis of Payment;
- (f) the Contractor's bid dated _____, (*insert date of bid*) (*If the bid was clarified or amended, insert at the time of contract award:*"), as clarified on _____ " **or** ", as amended on _____ " *and insert date(s) of clarification(s) or amendment(s)*).

6.12 Insurance

SACC Manual clause G1005C (2016-01-28), Insurance – No Specific Requirement

6.13 Dispute Resolution

The parties agree to maintain open and honest communication about the Work throughout and after the performance of the contract.

The parties agree to consult and co-operate with each other in the furtherance of the contract and promptly notify the other party or parties and attempt to resolve problems or differences that may arise.

If the parties cannot resolve a dispute through consultation and cooperation, the parties agree to consult a neutral third party offering alternative dispute resolution services to attempt to address the dispute.

Options of alternative dispute resolution services can be found on Canada's Buy and Sell website under the heading "<https://buyandsell.gc.ca/for-businesses/selling-to-the-government-of-canada/contract-management/dispute-resolution>" Dispute Resolution".



ANNEX “A”

STATEMENT OF WORK

1.0 Background

The Electricity and Combustion Division (ECD) of the Environment and Climate Change Canada (ECCC) functions as a departmental center of expertise in electricity and combustion and is the lead for the electricity sector in the Department's Environmental Protection Branch. ECD is responsible for developing policies, regulations and other instruments to reduce emissions and to manage the environmental effects of air pollutants, greenhouse gases and toxic chemical substances from the electricity sector and from industrial combustion. Specifically, ECD:

- Provides strategic technical, economic, business and policy analyses and advice;
- Develops regulatory approaches and instruments which consider existing and emerging advanced technologies; and,
- Implements regulatory instruments designed to reduce emissions.

Through the development of these instruments, ECD seeks to reduce risks to Canadians, their health and environment by promoting an environmentally sustainable electricity sector.

Canada chose electrification as a major decarbonization strategy to transform the country's energy economy. For this, Canada needs to increase the electricity generation and supply capacity while at the same time ensure that our electricity generation fleet is emission free. The Government of Canada (GoC) is introducing the Clean Electricity Regulations (CER) to enable a net-zero electricity grid by 2035, which is key to achieving a net-zero economy by 2050.

Focus on GHG emission cuts from power generation calls for substitution of fossil fuel sources by other non-emitting fuels/energy sources including hydrogen.

GoC is duly considering the prospects of enhanced production and future use of hydrogen for power production in the Canadian provinces. Of particular relevance are the provinces with significant fossil fuel based thermal power capacity particularly in Western Canada (Alberta and Saskatchewan), Ontario, and in the Maritime (New Brunswick and Nova Scotia). Hydrogen-fired power production assumes special relevance in the context of reliability of power supply particularly during the peak load hours and at other times when variable renewable energy (VRE) sources see drops in their generation levels (including total potential lull days in summer or winter). GoC is considering a definite supporting role for hydrogen in derisking power output from intermittent/variable renewable sources, such as wind and solar. Use of hydrogen in place of natural gas for power production in simple cycle gas turbines (SCGTs) or in combined cycle gas turbines (CCGTs) might be a possible strategy in this regard.

There are several pathways for non-emitting hydrogen production, such as green hydrogen (produced via electrolysis based on renewable electricity), or pink hydrogen (from electrolysis assisted by electricity or waste heat from nuclear power plants) – of special relevance here are small modular reactors (SMRs). In addition, there is blue hydrogen (from natural gas supported by carbon capture and storage (CCS) generated through potential thermochemical pathways, for example, steam methane reformation (SMR), and auto-thermal reforming (ATR). However, it is not clear to ECD, which generation pathway or a combination of pathways will emerge as the technology frontrunner in a time horizon beyond 2035 considering factors, such as geographical conditions of the region where the hydrogen is produced and the availability of geology suitable for CO₂ storage.



ECD intends to assess the future cost of hydrogen production estimated at hydrogen production facility gate for power production.

To this end, ECD solicits the service of a qualified Contractor to develop a quantification framework that duly considers the regional and other relevant factors to estimate the cost of producing hydrogen at the province level.

1.1. Objective:

The objectives of this contract are to:

- Generate an outlook on the future of hydrogen production to cater to hydrogen-fired power production in Canada.
- Tailor an existing tool or develop a new tool to estimate the hydrogen production cost for all provinces for all relevant hydrogen production pathways.
- Use the tool to estimate the cost of hydrogen delivery at the hydrogen production facility exit gate for each province.

1.2 Terminology:

ATR	Auto-Thermal Reforming
CCGTs	Combined Cycle Gas Turbines
CCS	Carbon Capture and Storage
CER	Clean Electricity Regulations
ECCC	Environment and Climate Change Canada
ECD	The Electricity and Combustion Division
GHG	Greenhouse Gas
GoC	The Government of Canada
SCGTs	Simple Cycle Gas Turbines
SMR	Small Modular Reactors
SOW	Statement of Work
TA	Technical Authority
VRE	Variable Renewable Energy

2.0 Scope:

Towards a successful completion of this Contract, the Contractor must accomplish the scope of work described below:

- 2.1 Present an informed discussion on the potential of hydrogen production beyond 2035 that is cognizant of risks associated with technology uncertainties.

The Contractor will accomplish this scope with focus on

- 2.1.1 Current provincial hydrogen production capacities.
- 2.1.2 Prospects and challenges for scaling up hydrogen production.
- 2.1.3 Provincial considerations for determining the hydrogen production pathways, based on various technologies such as blue, green, pink, and recommend techno-economically feasible pathways for hydrogen production for each province.



2.2 Develop a tool for estimating the hydrogen production cost. Hydrogen cost estimates will aggregate all potential costs associated with hydrogen production and storage including transportation of raw materials for hydrogen production. In addition, the Contractor must consider additional applicable costs associated with carbon capture and storage (CCS) for blue hydrogen or electricity input for green and pink hydrogen production. For blue hydrogen, the Contractor will consider 96% CO₂ capture efficiency for cost calculations. The contractor will be required to generate time series cost data for the period from 2035 and 2050 at 5-year intervals.

On the question of generating the primary data, the Contractor will be solely responsible for generating the production cost of hydrogen for various pathways, as well as the CCS costs, where applicable.

The Contractor will:

- 2.2.1 Tailor an existing quantification tool or develop a new tool that can aggregate all the cost components to generate hydrogen delivery costs till the point of production facility exit gate.

2.3 Estimation of hydrogen production cost at the production facility level.

The Contractor will:

- 2.3.1 Use the tool to estimate unit cost of hydrogen per kg, and per MJ for delivering hydrogen at facility exit gate for each province and for each applicable hydrogen production pathway.

3.0 Tasks:

The Contractor will adopt a step-by-step approach to accomplish the project scope of work with a Project Team comprising at a minimum of the Technical Lead/Project Manager, an Engineer, and a Financial Analyst by completing the following five tasks:

3.1 Inception Meeting

- 3.1.1 The Contractor will set up an Inception Meeting with the departmental TA to better understand the TA's expectations on the Contract outcome. The meeting must be scheduled within five (5) business days from the day the Contract is signed by both the parties. The meeting will focus on the Contractor's Technical Proposal/Appreciation of the Scope of Work (SoW) received before issuance of the Contract. The Contractor will send the Minutes of the Meeting to the TA within 1 day.

3.2 Project Plan and Kick-off Meeting

- 3.2.1 The Contractor will prepare the Project Plan based on the common understanding on the finer nuances of the Contract scope and submit it to TA a week before the Kick Off meeting. The TA will share feedback on the Project Plan before the Kick-Off. The project plan will include the approach and methodology for accomplishing all 5-project scope areas, summary of key datasets procured at the project onset, description of the tools to be used for the contract, and a list of key reports and literature to be used for the contract. The Contractor will organize a kick-off meeting for a detailed discussion on the Project plan with the TA including any potential issues and the ways to address them. The Contractor will email Minutes of the Kick-Off Meeting to the TA within 1 day after the kick-off.

3.3 Develop Draft Report



3.3.1 The Contractor will develop and email a Draft Report (in MS Word format) for review by the TA, who in turn will provide email feedback within five (5) business days after receiving the Draft Report.

3.4 Develop Draft Final Report and Draft PowerPoint Material

3.4.1 The Contractor will address the potential concerns of TA on the Draft Report while developing the Draft Final Report and the Draft PowerPoint Presentation (in MSWord and PowerPoint format respectively) and submit the deliverables to the TA for review. The TA will provide email feedback within five (5) business days after receiving the deliverables. At this stage, the TA will organize a video call to arrive at a deeper agreement/understanding between the two before the Contractor makes a project presentation. The Contractor will address all the issues raised by the TA and make a fresh submission of the updated deliverables minimum two (2) days before the Presentation.

3.4.2 Contractor will deliver a presentation via teleconference based on the PowerPoint material prepared under the Sub-Task 3.4.1.

3.5 Submission of Final Report

3.5.1 The Contractor is likely to hear a few new concerns at the presentation session, mandating new touches to the Report as well as the Presentation material. The Contractor will make the final submission of the Report and the Presentation material after add the necessary touches. TA’s acceptance of the Contractor’s final submissions will mark the end of the contract delivery on the part of the Contractor.

4.0 Deliverables:

The deliverables and schedule are outlined below in Table 1.

Table 1: Schedule, Deliverables, Reporting Format

Task #	Deliverable	Reporting Format	Schedule (weeks from contract signature)
3.1	Inception Meeting	n/a	Within [1]
3.2	Project Plan and Kick-Off meeting	MS Word	Within [4]
3.3	Draft Report	MS Word	Within [14]
3.4	Draft Final Report, and Draft PowerPoint Material	MS Word and PowerPoint	Within [16]
3.5	Deliver of presentation via teleconferencing	PowerPoint presentation via teleconferencing	Within [18]
3.6	Final Report	MS Word	Within [19]

All deliverables must be provided in the electronic format prescribed in Table 1 and submitted to the TA within the prescribed timeline. In addition to the final deliverable, the Contractor will provide to the Technical Authority electronic copies or functioning hyperlinks of all background documents (including reports, papers, notes, text, and raw data) used for the delivery of this Contract. Exchanges between the TA and the Contractor shall happen *via* emails, MS Teams, and telephone.



4.1 Acceptance of Deliverables

All documents produced by the Contractor will be subject to review in draft form by the Departmental TA or designated person. The review will generate feedback for the Contractor to incorporate into the final version of each deliverable. All work must be to the satisfaction of the TA. A deliverables will be considered complete when the TA communicates in writing to the Contractor that the Deliverable meets the contract scope for acceptance.

Furthermore, the Contractor will conduct their work subject to the following conditions:

- Additional information: This list of tasks is not necessarily exhaustive. The Contractor is encouraged and expected to provide the TA with any additional information discovered during the course of this work in cases where the additional information may be to be relevant to this contract's purpose or objectives.
- Uncertainties: The Contractor must update the TA on the uncertainties identified, if any, with information on the sources, and duly explain the implications of the uncertainties.
- Monetary values: All monetary values must be expressed by the Contractor in Canadian dollars, with the year the dollars are indexed. Instances of currency conversion must be identified by the Contractor and accompanied by the Contractor's explanation of the exchange rate used.
- Technical data: The Contractor is expected to present technical data in the form of tables and/or graphs.
- Supporting and underlying data: Data must be properly organized, referenced, and sourced. If estimates and assumptions are used, they must be clearly identified and justified.
- Sources: The Contractor must report all relevant sources of information.
- Reports: The project written materials, including reports, (in either draft or final form) must be written in a clear and logical fashion and must be submitted in a Microsoft Office format for Windows, version 2016 or later.

5.0 Official Languages

The Contractor will conduct all work in English and will provide written materials in a language style consistent with that used in the preparation of normal business dealings regarding submission of project tenders, draft reports, etc.

The department is under the obligation to respect the spirit and the letter of the Official Languages Act R.S.1985,C.31 (4th Suppl.). It is therefore imperative that the Contractor when representing the Crown ensures that verbal communications are in the preferred official language of the participants. Written communications will be in the language(s) of the participants and must be submitted to the Department Representative before they are issued. If participants are required to communicate by telephone with the Contractor or his/her representatives, the Contractor must ensure that all persons, including receptionists and other contacts who will be receiving these calls, are bilingual.

6.0 Work Location:

The work may be performed virtually anywhere in Canada.

7.0 Travel:



Travel is not required to perform the Work.

8.0 Sustainable Procurement Considerations

The Contractor should make an effort to ensure that their operations and performance of the Work align with the Treasury Board [Policy on Green Procurement](#) and [Greening Government Strategy](#). Procurement documents will specify the green procurement criteria and standards to be met and provide guidelines for the evaluation of proposals with respect to those criteria and standards.

The following green procurement criteria and standards must form part of the Work:

- Provide all correspondence and deliverables including (but not limited to) documents, reports and invoices in electronic format.
- If correspondence and deliverables are not provided in electronic format, all documents must be printed double-sided on Ecologo certified recycled paper or on paper with equivalent post-consumer recycled content to the full extent to which it is procurable.

9.0 Accessibility Considerations

The Government of Canada strives to ensure that the goods and services it procures are inclusive by design and accessible by default, in accordance with the [Accessible Canada Act](#), its associated regulations and standards, and Treasury Board Contracting Policy. Procurement documents will specify the accessibility criteria and standards to be met and provide guidelines for the evaluation of proposals with respect to those criteria and standards.

The following accessibility criteria and standards must form part of the Work:

- All written reports must be created in a format that is accessible, as per the Accessibility, Accommodation, and Adaptive Computer Technology Program (AAACT) “How to create the accessible documents” guide Version 1.5.
- The work to be completed remotely by the Contractor. This will allow the Contractor to work from their home and/or work based in Canada. The Contractor will be able to perform work for ECCC in an environment comfortable and accessible to them.



ANNEX "B"

BASIS OF PAYMENT

(to be completed at contract award)

Table 1: Base Requirements

Milestone (A)	Deliverables (B)	Due date on or before (C)	% of Payment	Subtotal (D)
1	Tasks 3.1 & 3.2	4 weeks After Contract Award Date	20%	
2	Tasks 3.3 & 3.4	16 weeks After Contract Award Date	40%	
3	Tasks 3.5 & 3.6	19 weeks After Contract Award Date	40%	
			Subtotal (E)	
			Taxes (F)	
			Total (G)	