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LETTER OF INTEREST

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Vendor/Firm Name and Address

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Title - Sujet RFI-Carbon output Based Pricing Sys	
Solicitation No. - N° de l'invitation K4A20-190925/A	Date 2018-12-21
Client Reference No. - N° de référence du client K4A20-190925	GETS Ref. No. - N° de réf. de SEAG PW-\$EEM-011-34433
File No. - N° de dossier 011eem.K4A20-190925	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2019-01-21	
Time Zone Fuseau horaire Eastern Standard Time EST	
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: Labossière, Jean-Claude	Buyer Id - Id de l'acheteur 011eem
Telephone No. - N° de téléphone (613) 858-7359 ()	FAX No. - N° de FAX () -
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	Delivery Offered - Livraison proposée
Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur	
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Name and title of person authorized to sign on behalf of Vendor/Firm (type or print) Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)	
Signature	Date

REQUEST FOR INFORMATION

FOR

Environment and Climate Change Canada (ECCC)

**Output-Based Pricing System (OBPS)
and
Clean Fuel Standard (CFS)
Solution**

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PART 1 – PURPOSE AND BACKGROUND

1. Purpose of this Request for Information (RFI)

The purpose of this Request for Information is to notify industry and other stakeholders of the Government of Canada's intention to initiate a procurement process to retain a single contractor to provide and implement a **tracking system** to support Environment and Climate Change Canada's (ECCC's) Output-Based Pricing System (OBPS) and a **registry** to support ECCC's Clean Fuel Standard (CFS). The integrated Solution must also be able to accommodate the needs of other ECCC credit generation and trading programs, if enabled by regulations. This Request for Information (RFI) also provides advanced notice of the high-level business requirements, as well as providing the industry with the opportunity to give written feedback on the requirements and the procurement strategy.

This means the Contractor must:

- Develop, implement, operate, support and maintain the Solution as required;
- Configure and customize the Solution to client business and technical needs;
- Maintain and update the Solution on a timely basis with available updates, and any other available improvements and innovations, providing the most robust solution services available;
- Acquire licences required to host the Solution for Canada's use;
- Provide data transmission and Solution hosting services as required;
- Provide Canada access to and use of the Solution;
- Develop and provide existing and custom hands-on training to ECCC client specialists and users and training materials ECCC can use to support training the end users;
- Provide professional services for Solution enhancement, maintenance, troubleshooting and failure event management, and;
- Integrate current and future innovations with the Solution, if required during contract period.

It is the Government of Canada's intention that the contract will cover an initial period of 4 years plus irrevocable options to extend the period of the Contract, if exercised by the client, by up to 6 consecutive periods of one-year each.

2. Purpose of the project

The purpose of the federal OBPS Tracking System and CFS Registry (the “Project”) is to provide a tracking system ECCC requires to support the federal OBPS established under the *Greenhouse Gas Pollution Pricing Act (GGPPA)*, and a registry to support the Clean Fuel Standard (CFS) to be established under the *Canadian Environmental Protection Act, 1999 (CEPA)*. The Solution must also accommodate the needs of other ECCC credit generation and trading programs, such as an offset system, if enabled by regulations.

3. Project Background

Under the Pan-Canadian Framework on Clean Growth and Climate Change, putting a price on carbon pollution and implementing a Clean Fuel Standard are key mitigation tools to reduce greenhouse gas emissions. Both OBPS and CFS programs have a requirement to create, manage and trade credits and the programs are working together to procure a Solution that will address the needs of both while minimizing costs and overhead required.

3.1. OBPS Background

A price on carbon pollution is a pillar of Canada’s clean growth and climate plan—the [Pan-Canadian Framework on Clean Growth and Climate Change](#) (PCF¹), adopted by First Ministers in December 2016.

In October 2016, the Prime Minister announced the Pan-Canadian Approach to Pricing Carbon Pollution (the federal benchmark), under which provinces and territories had the flexibility to develop their own carbon pollution pricing systems aligned with common criteria (federal benchmark) to ensure they are stringent, fair, and efficient. The federal government also committed to implementing a federal carbon pollution pricing system in provinces and territories that request it or do not have a carbon pollution pricing system that meets the federal benchmark.

The GGPPA received royal assent in June 2018. Under the GGPPA the federal carbon pollution pricing system has two parts:

- a charge on fossil fuels (the fuel charge); and

¹ Link to the Pan Canadian Framework on Clean Growth and Climate Change (PCF):

<https://www.canada.ca/en/services/environment/weather/climatechange/pan-canadian-framework.html>

- a performance-based pricing system for industrial facilities, known as the OBPS.

Provinces and territories had until September 1, 2018, to outline their plans for pricing carbon pollution. The stringency of each system was assessed against the federal benchmark. On [October 23, 2018, the Prime Minister announced](#)² where the federal system will apply, based on the results of this assessment.

Initially, owners and operators of facilities in a backstop jurisdiction meeting criteria specified in the [Notice Establishing Criteria Respecting Facilities and Persons and Publishing Measures](#)³ will be required to apply for registration of their facilities. Owners and operators of a broader set of facilities may apply to voluntarily participate in the OBPS. Information on voluntary participation in the federal OBPS was released [[December 20, 2018 and is available here](#)⁴].

Facilities registered in the federal OBPS will be issued a Covered Facility Certificate they can present to the Canada Revenue Agency in order to gain “registered emitter” status and be eligible for an exemption certificate allowing them to receive fuel on which no charge is applied.

Owners and operators of facilities subject to the federal OBPS will be required to provide third party verified facility reports on emissions and production from their facilities for each compliance year. The first compliance year starts (for facilities in provinces where the federal OBPS applies) January 1, 2019 and ends December 31, 2019. The reports will also identify the GHG Emissions Limit applicable to the facility and whether emissions exceeded or were below this limit.

The Minister of the Environment will issue surplus credits to persons responsible for facilities that have emitted under their limit. These credits can be banked for future use or traded to other facilities.

Persons responsible for facilities whose emissions exceeded the applicable limit will be required to remit compensation for those excess emissions.

² Link to the October 23, 2018, the Prime Minister announcement: <https://www.canada.ca/en/environment-climate-change/services/climate-change/pricing-pollution-how-it-will-work/putting-price-on-carbon-pollution.html>

³³ Link to the Notice Establishing Criteria Respecting Facilities and Persons and Publishing Measures: <http://gazette.gc.ca/rp-pr/p2/2018/2018-10-31/html/sor-dors213-eng.html>

⁴ Link to Information on voluntary participation in the federal OBPS: <https://www.canada.ca/en/environment-climate-change/services/climate-change/pricing-pollution-how-it-will-work/output-based-pricing-system.html>

Compensation can be remitted to the Government of Canada the following ways:

- Payment of the “excess emission charge” to the Government of Canada set at the same level of the fuel charge (i.e. \$20 per tonne CO₂e in 2019, increasing to \$50 per tonne CO₂e in 2022 and beyond unless specified)
- By submitting surplus credits / offset credits (if enabled by regulations) issued by the Minister of Environment
- By submitting recognized units (i.e. eligible offset credits from provincial offset systems), or
- A combination of the above three compliance options

Excess emission charge payments will be made electronically to the Canada Revenue Agency (i.e. not through this Solution).

[Section 185 of the GGPPA](#)⁵ requires the Minister to establish and maintain a system that tracks

- (a)** the issuance by the Minister of surplus credits and offset credits (if enabled by regulations);
- (b)** the transfer, retirement, suspension, revocation and cancellation of those compliance units;
- (c)** excess emissions charge payments made under [section 174](#)⁶ or [178](#)⁷ and payments made under [subsection 181\(3\)](#)⁸; and
- (d)** any other transaction specified in the regulations.

⁵ Link to section 185 of GGPPA : https://www.canlii.org/en/ca/laws/stat/sc-2018-c-12-s-186/latest/sc-2018-c-12-s-186.html?searchUrlHash=AAAAAQADMTg1AAAAAAE&offset=9368%20-%20sec185_smooth

⁶ Link to the section 174: https://www.canlii.org/en/ca/laws/stat/sc-2018-c-12-s-186/latest/sc-2018-c-12-s-186.html?searchUrlHash=AAAAAQADMTg1AAAAAAE&offset=9368#sec174_smooth

⁷ Link to the section 178: https://www.canlii.org/en/ca/laws/stat/sc-2018-c-12-s-186/latest/sc-2018-c-12-s-186.html?searchUrlHash=AAAAAQADMTg1AAAAAAE&offset=9368#sec178_smooth

⁸ Link to the subsection 181(3): https://www.canlii.org/en/ca/laws/stat/sc-2018-c-12-s-186/latest/sc-2018-c-12-s-186.html?searchUrlHash=AAAAAQADMTg1AAAAAAE&offset=9368#sec181subsec3_smooth

[Section 195 of the GGPPA](#)⁹ allows for the establishment of regulations for an offset system for projects that result in offset credits that can be used as compensation under the OBPS.

3.2. CFS Background

The Government of Canada announced on November 25, 2016 that it would develop a [Clean Fuel Standard](#)¹⁰ to reduce Canada's GHG emissions through the increased use of lower carbon fuels, energy sources and technologies.

The Clean Fuel Standard is a performance-based approach that will incent the use of a broad range of low carbon fuels, energy sources and technologies, such as electricity, hydrogen, and renewable fuels, including renewable natural gas. It is also a market based approach, with a credit and trading system linking carbon intensity requirements with compliance actions.

It will establish lifecycle carbon intensity requirements separately for liquid, gaseous and solid fuels, and would go beyond transportation fuels to include those used in industry and buildings. The Clean Fuel Standard will complement the pan-Canadian approach to pricing carbon pollution.

The objective of the Clean Fuel Standard is to achieve 30 megatonnes of annual reductions in GHG emissions by 2030.

The approach starts with the development of the standards for liquid fuels, followed by gaseous and solid fuels together. A regulatory design paper for the liquid stream regulations was published December 20, 2018 that sets out the key regulatory design elements.

The timelines are:

- **for liquid fuels:** publish proposed regulations in spring 2019 and final regulations in 2020, with requirements coming into force by 2022
- **for gaseous and solid fuels:** publish proposed regulations in fall 2020, final regulations in 2021 with requirements coming into force by 2023

⁹ Link to section 195 of GGPPA: https://www.canlii.org/en/ca/laws/stat/sc-2018-c-12-s-186/latest/sc-2018-c-12-s-186.html?searchUrlHash=AAAAAQADMTg1AAAAAE&offset=9368%20-%20sec185_smooth#sec195_smooth

¹⁰ Link to Clean Fuel Standard: <https://www.canada.ca/en/environment-climate-change/services/managing-pollution/energy-production/fuel-regulations/clean-fuel-standard.html>

4. Project Summary

For the OBPS, the project that is intended to be addressed by the procurement process involves the development and implementation of an on-line tracking system – a platform for issuance, tracking and remittance of credits, and tracking the remittance of other forms of compensation. (The components supporting facility registration in the OBPS and collection of third-party verified Facility reports on emissions and production from facilities are being designed and built in-house by ECCC.)

For CFS, the project that is intended to be addressed by the procurement process involves the development and implementation of an on-line platform for registration and reporting, as well as the issuance, tracking and retirement of credits.

5. Anticipated Scope

ECCC desires to procure a single solution that will meet the needs of both OBPS and CFS as described below.

5.1. Anticipated Scope for OBPS

The OBPS needs a tracking system to allow ECCC to meet the requirements of [s.185 of GGPPA](#)¹¹, provide a mechanism to issue and manage credits, and facilitate submission of compensation by covered facilities and credit trading by account holders. The scope includes the following items.

- (1) Develop and maintain tools to allow ECCC to:
 - (a) Transfer data from the registration and Facility reporting system for OBPS Covered Facilities indicating the quantity of surplus credits earned or the compensation obligation owing by each facility.
 - (b) Issue surplus credits and track the issuance of surplus credits;
 - (c) Track the transfer, retirement, suspension, revocation and cancellation of those surplus credits;
 - (d) Track excess emission charge payments made;
 - (e) Track use of recognized units as compensation;

¹¹ Link to s.185 of GGPPA: https://www.canlii.org/en/ca/laws/stat/sc-2018-c-12-s-186/latest/sc-2018-c-12-s-186.html?searchUrlHash=AAAAAQADMTg1AAAAAE&offset=9368%20-%20sec185_smooth#sec185_smooth

- (f) Monitor and track compliance of OBPS Covered Facilities with their compensation obligations;
 - (g) Withdraw credits from non-compliant regulates;
 - (h) Access data and reporting functions that allow ECCC to report to the public and Parliament on activities under the OBPS.
- (2) Develop, and maintain tools to allow persons responsible for OBPS facilities (OBPS Covered Facility Account Holders) to:
- (a) Open and maintain account(s) as required by the regulations
 - (b) Receive surplus credits issued by ECCC
 - (c) Receive surplus credits transferred by another OBPS Covered Facility Account Holder or Non-Facility Market Participant
 - (d) Hold (or bank) surplus credits
 - (e) Transfer credits to another OBPS Covered Facility Account Holder or Non-Facility Market Participant
 - (f) View compensation obligation(s)
 - (g) Remit one or more of the following for compensation:
 - (i) Certain compliance units, including surplus credits
 - (ii) Proof of having paid the excess emission charge to CRA
 - (iii) Proof of remittance/retirement of eligible offset credits in a provincial offset system.
- (3) Develop, and maintain tools to allow Non-Facility Market Participants to:
- (a) Open and maintain account(s)
 - (b) Receive surplus credits transferred by another OBPS Covered Facility Account Holder or Non-Facility Market Participant
 - (c) Transfer credits to another OBPS Covered Facility Account Holder or Non-Facility Market Participant
- (4) Develop, and maintain tools to allow the public to:
- (a) View specific credit tracking data for transparency and integrity of the market.

Further details regarding the OBPS business requirements are presented in Appendix A.

5.2. Anticipated Scope for CFS

- (1) Develop, and maintain tools to allow users (fossil fuel primary suppliers who are obligated parties under CFS, and CFS credit generators and third parties) to:
 - (a) Register, open and maintain account(s) as required by the regulations
 - (b) Upload fuel transaction reports and compliance reports into the Solution
 - (c) Correct reports as needed
 - (d) Receive credits issued by the system or transferred by other system users
 - (e) Transfer credits to another system user (fossil fuel primary supplier or credit generator)
 - (f) View compliance obligation and credit bank balance
- (2) Develop and maintain tools within the Solution to:
 - (a) Use data from fuel transaction reports (e.g. fuel volumes and carbon intensities) to calculate numbers of CO2 exceedances and credits assigned to system users
 - (b) Issue credits with unique serial numbers
 - (c) Track the transactions for credits,, including but not limited to transfers (purchase and sales), creations , banking, carry-over and credits placed on hold
 - (d) Retire credits
 - (e) Monitor compliance
- (3) Develop and maintain tools within the solution which allow 3rd party verifiers to
 - (a) Review reports within the system of parties they represent for the purposes of verification, and upload verification statements into the system
- (4) Develop and maintain tools within the solution which allow ECCC to:
 - (a) Access and download data as required
- (5) Develop, and maintain tools to allow the public to:
 - (a) View some aggregated data for transparency.

Further detail regarding CFS business requirements can be found in Appendix B.

5.3. Other Programs

ECCC requires that the IT solution put into place for OBPS and CFS be expandable to support the needs of other similar or related market-based trading programs in the future. Examples may include a possible federal offset system, or tracking Internationally Transferred Mitigation Outcomes or ITMOs under [Article 6 of the Paris Agreement](#)¹². Canada may also request bidders consider working together where it views there is an added benefit.

6. Project Timeline

Project Milestone/Deliverables	Target Date
Surplus Credit Issuance/Tracking System Operational	1 March 2020
Registration, Reporting and Tracking System for CFS Operational	1 June 2020

¹² Link to the Paris Agreement :

https://unfccc.int/files/essential_background/convention/application/pdf/english_paris_agreement.pdf

PART 2 – REQUEST FOR INFORMATION

7. Nature of Request for Information

This is not a bid solicitation. This RFI will not result in the award of any contract. As a result, potential Suppliers of any goods or services described in this RFI should not reserve stock or facilities, nor allocate resources, as a result of any information contained in this RFI. Nor will this RFI result in the creation of any source list. Therefore, whether or not any potential Supplier responds to this RFI will not preclude that Supplier from participating in any future procurement. This RFI is simply intended to notify the industry and solicit feedback from industry with respect to the matters described in this RFI.

8. Nature and Format of Responses Requested

Respondents are requested to provide their comments, concerns and, where applicable, alternative recommendations regarding how the requirements or objectives described in this RFI could be satisfied. Respondents are also invited to provide comments regarding the content, format, and/or organization of any draft documents included in this RFI. Respondents should explain any assumptions they make in their responses.

9. Response Costs

Canada will not reimburse any respondent for expenses incurred in responding to this RFI.

10. Treatment of Responses

- a) Use of Responses: Responses will not be formally evaluated or published. However, the responses received may be used by Canada to develop or modify procurement strategies or any draft documents contained in this RFI. Canada will review all responses received by the RFI closing date. Canada may, at its discretion, review responses received after the RFI closing date.
- b) Review Team: A review team composed of representatives of ECCC and PSPC will review the responses. Canada reserves the right to hire any independent consultant or use any Government resources that it considers necessary to review any response. Not all members of the review team will necessarily review all responses.
- c) Confidentiality: Respondents should mark any portions of their response that they consider proprietary or confidential. Canada will handle the responses in accordance with the *Access to Information Act*.
- d) Follow-up Activity: Canada may, at its discretion, contact any respondents to follow up with additional questions or for clarification of any aspect of a response.

11. Contents of this RFI

PART 3 of this RFI contains specific questions addressed to the potential suppliers. Canada has also included a list of high-level draft requirements in PART 4 in order to obtain industry feedback on requirements that may be included as part of the procurement process. These requirements address some, but not necessarily all, of the requirements which Canada intends to address in the procurement process. Canada is including these requirements to provide any potential supplier interested in taking part in the procurement process, advanced notice of some of the requirements likely to be included. The standards and the content are subject to change, and Canada will provide updates to these requirements as they evolve.

Canada will use the feedback obtained through this RFI to inform the final requirements which will be finalized through subsequent phases of the procurement process. The wording provided does not represent the entirety of Canada's requirements. Industry will also have the opportunity to provide comments and seek clarification on these and other requirements during subsequent phases of the procurement process. Canada will determine the substance and content that reflects Canada's requirements.

12. Format of Responses

- a) Cover Page: If the response includes multiple volumes, respondents are requested to indicate on the front cover page of each volume the title of the response, the solicitation number, the volume number, and the full legal name of the respondent.
- b) Title Page: The first page of each volume of the response, after the cover page, should be the title page, which should contain:
 - (i) the title of the respondent's response and the volume number;
 - (ii) the name and address of the respondent;
 - (iii) the name, address and telephone number of the respondent's contact;
 - (iv) the date; and
 - (v) the RFI number.
- c) Numbering System: Respondents are requested to prepare their response using a numbering system corresponding to the one in this RFI. All references to descriptive material, technical manuals, and brochures included as part of the response should be referenced accordingly.
- d) Number of Copies: Canada requests that respondents submit an electronic copy via email of their response to the Contracting Authority.

13. Enquiries

Because this is not a bid solicitation, Canada will not necessarily respond to enquiries in writing or by circulating answers to all potential Suppliers. However, respondents with questions regarding this RFI may direct their enquiries to:

Contracting Authority: Jean-Claude Labossière
E-mail Address: jean-claude.labossiere@tpsgc-pwgsc.gc.ca
Telephone: 613-858-7359

14. Submission of Responses

- a) Time and Place for Submission of Responses: Suppliers interested in providing a response should email their response to the Contracting Authority identified above by the time and date indicated on page 1 of this Tender Notice.
- b) Responsibility for Timely Delivery: Each respondent is solely responsible for ensuring its response is delivered on time to the correct location.
- c) Identification of Response: Each respondent should ensure that its name and return address, the solicitation number and the closing date appear legibly on the outside of the response.

PART 3 – QUESTIONS to INDUSTRY

Canada requests that RFI respondents provide written responses to each of the questions below. When responding, please ensure your answers are detailed and contain the rationale to support your suggested feedback. Respondents should note that there are no obligations to respond to all questions.

Q 1. Corporate Profile:

Please provide a brief description of your company/firm and the types of products and services it provides. Please include a brief description of similar projects you have completed that compare with the proposed Solution. In this description, also identify any uniqueness that your firm could provide as value-added benefits.

Q 2. Vendor Requirements to Generate an Effective Response:

ECCC would like to ensure that industry has the information that they require so they are properly prepared to propose the best possible solutions.

The proposed procurement process in addition to this RFI stage is anticipated to provide to bidders documentation containing a comprehensive:

- a) statement of work (SOW), statement of requirement (SOR) and evaluation criteria;
- b) conceptual business model;
- c) business requirements definition (BaRD) containing functional and non-functional requirements;
- d) security requirements (IT, physical and personnel);
- e) service management levels; and
- f) other detailed technical, business and operational materials.

In order to propose a combination of a fixed and subscription based pricing model for the intended Solution that would be sufficiently flexible to support enhancements in the future and integration with internal or external services.

- a) Please indicate what type and what level of business / technical / Security / operational information you would like to see and how the information should be structured?
- b) What are the criteria or critical factors that you would make a company successful?
- c) What are the common elements or characteristics that could be used to determine the most qualified companies? (i.e. experience, technology, environment, carbon surplus or credit issuance and tracking, fraud prevention, reporting, etc.)

Q 3. SaaS/PaaS solution:

Canada intends to acquire the Solution as a SaaS/PaaS offering. Is your solution currently built on a PaaS and offer as a SaaS offering?

- a) If so please describe your solution, including:
 - i) how long has the your solution been in the market;
 - ii) # of clients and geographical distribution;
 - iii) Limitations on user polices, licensing or other restrictions;
 - iv) Liability /Cap/Insurance;
 - v) Service Level Agreements minimum performance;

- vi) SLA management reports;
 - vii) Public or private cloud offering;
 - viii) Industry Certifications and audits such as ISO, FEDRAMP, SOC2 Type II, Uptime institute Tier (1-4) rating;
 - ix) Client feedback? Awards, Certifications?
- b) If not, please describe your hosting platform / Solution.
- c) Could your solution be hosted on a third party infrastructure?

Q 4. Solution Development & Operation:

In the context of continuous development, integration, testing and deployment, has your organization adopted an agile approach for creating your solution? (e.g. iterative, [devops](#)¹³, [devsecops](#)¹⁴)

- a) How can these methodologies and concepts be leveraged to accelerate the delivery of this project? If not, what would you propose?
- b) How would you include Government of Canada (GC) employees in the development/customization process and how can they be ready to pro-actively collaborate to the development, customization, configuration, training, testing, operation, maintenance, and support of the proposed Solution?

Q 5. Service Evolution and Extensibility:

Reuse is a key tenant when acquiring an enterprise solution and/or platform to deliver key business capabilities. How does your platform enable reuse of its components in the development of different business automation and presentation in the following areas?

- a) Hosted Solution management;
- b) Business process automation and management;
- c) Business rules management;
- d) Case management;
- e) Dynamic form and content management;
- f) Client application management;
- g) Data access services;
- h) User management;
- i) Program management;
- j) Operational metrics and reporting;
- k) Communication management;
- l) Performance indicator management;

¹³ DevOps: <https://www.atlassian.com/devops>

¹⁴ DevSecOps: <http://www.devsecops.org/blog/2015/2/15/what-is-devsecops>

- m) Enterprise class portal;
- n) Interoperability services; and
- o) User feedback/Issues management

Q 6. Security, Privacy, Data Residency and Audit:

Canada has issued a set of baseline security controls recommended for implementation by cloud service providers (CSPs) and GC departments in order to appropriately protect cloud-based services that have a security category of Protected B, medium integrity and medium availability. This is documented in the [Government of Canada Security Control Profile for Cloud-based GC IT Services](https://www.canada.ca/en/treasury-board-secretariat/services/information-technology/cloud-computing/government-canada-security-control-profile-cloud-based-it-services.html)¹⁵. Canada has also published the Direction on the Secure Use of Commercial Cloud Services: [Security Implementation Notice \(SPIN\)](https://www.canada.ca/en/treasury-board-secretariat/services/access-information-privacy/security-identity-management/direction-secure-use-commercial-cloud-services-spin.html)¹⁶ that identifies roles and responsibilities for cloud.

Canada has published its Direction for Electronic Data Residency: [IT Policy Implementation Notice \(ITPIN\)](https://www.canada.ca/en/treasury-board-secretariat/services/information-technology/policy-implementation-notice/direction-electronic-data-residency.html)¹⁷ that any cloud solution will have to adhere to with respect to data residency. The Government of Canada must have the ability to isolate any sensitive electronic data under its control categorized as Protected A or B in a GC-approved data center. For the purpose of this solicitation, a GC approved data center is a computing facility or data storage geographically located in Canada as directed in the Direction for Electronic Data Residency. Therefore, the Solution and its infrastructure and customer services may be required to be provided within Canada. Stringent contractual and technical requirements will be put in place to ensure that government information is secured at all times, at rest and in motion, and is only accessed by those authorized to access the data for those purposes approved by Canada. ECCC ultimately owns the data once it is submitted into the system.

Based on the above, please indicate:

1. Are your organization and your solution capable of meeting the GC requirements as stated above? If not, please elaborate on the requirement(s) and/or clauses that you are not able to meet and what would be the recommended changes to the requirement(s) and/or clause(s) that you would propose or require?
2. Is your organization and your solution certified ISO 27001/ISO 27017, CSA STAR Level 2 Attestation or Level 2 Certification, and/or AICPA SOC 2, Type II?

¹⁵ <https://www.canada.ca/en/treasury-board-secretariat/services/information-technology/cloud-computing/government-canada-security-control-profile-cloud-based-it-services.html>

¹⁶ <https://www.canada.ca/en/treasury-board-secretariat/services/access-information-privacy/security-identity-management/direction-secure-use-commercial-cloud-services-spin.html>

¹⁷ <https://www.canada.ca/en/treasury-board-secretariat/services/information-technology/policy-implementation-notice/direction-electronic-data-residency.html>

3. What would be the estimated time and effort to update/upgrade the solution to meet these requirement should your organisation and solution:
 - i) Be fully certified ISO 27001/ISO 27017, CSA STAR Level 2 Attestation or Level 2 Certification and/or SOC 2, Type II?
 - ii) Be in process of being certified ISO 27001/ISO 27017, CSA STAR Level 2 Attestation or Level 2 Certification and/or SOC 2, Type II?
 - iii) Be only considering ISO 27001/ISO 27017, CSA STAR Level 2 Attestation or Level 2 Certification and/or SOC 2, Type II certifications?
4. Can your solution be configured or customized to meet the GC requirements?
5. Does your organization contain human resources for development and ongoing support of the solution, who have the appropriate security clearance to handle and manage GC data that is designated Protected A and/or Protected B? If not, please describe the manner in which this risk can be mitigated on order to provide timely and cost effective services in this business context.
6. Does your solution have policies and technical systems to limit and restrict access to authorized individuals for necessary and legitimate purposes only? What types of access rights would be put in place to restrict to the minimum, information and resources necessary to perform legitimate duties?
7. Does your solution support the creation of audit logs for the purposes of monitoring access, detecting misuse, and investigating privacy breaches?
8. Can your solution provide encryption for data in transit and data at rest?
9. Does your solution support the segregation of sensitive information, either through physical separation of data or through the encryption of storage devices?
10. Any challenges, risks or issues for this project as it relates to addressing any or all of the above security and privacy requirements.
11. Does your organization have the ability to house its data in Canada?

Q 7. Right to conduct security audit:

The Contractor will be required to provide the Services in accordance with the security requirements. Canada may also include the below clauses in the resulting Contract:

Canada may audit the Contractor's compliance with the security requirements included in the Contract at any time. If requested by the Contracting Authority, within 24 hours' notice, the Contractor must provide Canada (or Canada's authorized representative) with full escorted access to its premises, its network, and all databases storing Canada's Data (or use a defined term that you adopt) or data related to the Contract on working days from 08:00 to 17:00 ET at no cost to Canada. If Canada identifies any security deficiencies with respect to the Contractor's compliance with the security requirements set out in the Contract during an audit, the Contractor must immediately correct the deficiencies at its own expense.

The Contractor acknowledges that Canada requires, and the Contractor guarantees that, the Services provided under the Contract are and will be the subject of robust, comprehensive security measures that evolve as security threats and technologies evolve, so that the security measures in use are updated

throughout the Contract Period, in order to achieve the highest possible levels of data integrity, availability, and confidentiality.

ECCC must ensure that the information is in a format which can be easily accessed by ECCC without the need of specialized skill sets, specialized hardware/software, or access to the solution. Particularly, not in a proprietary form which can only be accessed by the vendor.

Based on the above, please indicate:

- a) Is your organization capable of meeting the GC requirements as stated above? If not, please elaborate on the requirement(s) and/or clauses that you are not able to meet and what would be the recommended changes to the requirement(s) and/or clause(s) that you would propose?

Q 8. Web Accessibility Requirements:

Can your solution comply with the GC requirement wherein the proposed Solution must have all of its interfaces and outputs to adhere to the Standard on [Web Accessibility \(SWA\)](#)¹⁸ which is derived from WCAG 2.0? If not please describe.

Q 9. Integration and Implementation:

Canada anticipates a high level of effort for integration and discovery for a Go Live date for OBPS functionality of **March 1, 2020** and CFS functionality of **June 1, 2020**.

- a) Given the project timelines above and your anticipated proposed solution, what would be a standard project timeline and high-level steps required to meet the 'Go Live' date as suggested in Phase 2? Please use your own previous experience to provide size and scope in your response (e.g. from low to high complexity). Would a 6 month implementation window be sufficient to meet the go live date above?
- b) From previous experience, what assumptions and dependencies should be included in the plan?
- c) What other clients have you successfully completed an integration of this nature for?

Q 10. Solution Evolution:

How do you typically address future technological evolution of solution within your contracts? Are updates provided automatically and free of charge during implementation phase, or are they added at additional cost? Do you require significant patch management and recertification?

Q 11. Operational Budget Model – Pricing:

What approach would you recommend for the pricing of ongoing operations? What is normally offered? As an example, it could include:

- 1) Firm upfront payment that could include:
 - a) software subscription, or licence fees

¹⁸ Link to Web Accessibility Standard: <http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=23601>

- b) project based implementation
 - c) initial provisioning fee from hosting cloud provider including monthly fees for hosting equipment, virtualization, security, data storage, people and bandwidth
 - d) development, testing, deployment and operation.
- 2) Fixed ongoing recurring payment
- a) Fixed monthly recurring ongoing fees that includes:
 - i) Monthly hosting fee
 - ii) Annual software maintenance fee that includes bug fixes, new versions and related support
 - iii) Operation, maintenance support and hosting services for the Solution (e.g. cloud computing environment and the deployed Programs)
- 3) Variable cost for development, testing, deployment, and operation of future Programs.
- 4) Variable cost for upgrades and client Solution modifications/upgrades (e.g. custom codes), integration support, certifications, etc.
- 5) Variable cost for upgrades and Solution modifications/upgrades (e.g. custom codes), integration support, security certifications, audits, physical security, etc.

Based on the above, please identify any factors that may affect costing for an operational budget model. How would the enabling components of your solution be separated and priced? How would they work together?

Q 12. Operational Budget Model - License arrangement:

ECCC would like to examine a license arrangement that is based on actual consumption of the service by the authenticated users. Based on the above, please indicate:

- a) Would your company be able to provide such a license arrangement?
- b) What unit of measure would you normally use to sell under a consumption-based pricing model?
- c) What unit of measure would you normally use to sell your subscription/licences?
- d) What unit of measure would you normally use to sell under your own subscription/licence arrangement based pricing model?

Based on the above, please identify any factors that may affect costing for an operational budget model.

Q 13. Pricing and Agreement Format:

What format or approach would you recommend for the pricing of ongoing operations? What is normally offered by the industry? As an example, it could include:

- a) Without divulging price, what unit of measure is typically used for pricing your solution (i.e. Single monthly subscription price, subscription/licence plus support, is support a percentage, etc.)?

- b) Without divulging price, what is the typical format for pricing scalability (i.e. banded volumetric, a percentage increase if volumes are exceeded, etc.) and what information do you need from Canada to do so?
- c) Is your organization able to provide pricing and rates for a period of 10 years (accounting for inflation, CPI, etc.)? If not, what is the maximum preferred length?

Q 14. Contracting Challenges Considerations:

Please identify common areas of contracting challenges and issues associated with managed cloud computing services to support the contract of the type envisaged by Canada for this project. Examples of potential areas of focus may include but are not limited to:

- a) Security requirements;
- b) Intellectual property rights;
- c) Limitations of liability;
- d) Service level agreement and associated factors (e.g. service penalties and credits);
- e) Data sovereignty, data residency and privacy related issues;
- f) Provisions associated with providing required dynamic service demands (e.g. flexibility and scalability requirements in support of ECCC Programs); Supporting service transformation initiatives and introduction of new service delivery capabilities as the business continues to evolve (e.g. introduction of new ECCC Programs, migration or deployment of the Solution to support other Federal, Provincial and Territorial entities);
- g) Process for recovery and transition of data at the end of the contract and use of the proposed Solution;
- h) Use of Open source software in cloud solution environment; and
- i) Service Agreements between cloud service provider, integrator and/or software publishers.

Q 15. Term of Contract:

ECCC would like the OBPS Project Office and the CFS IT solution to be as efficient as possible and reduce risk wherever possible.

Please indicate any lessons learned, common risk factors, and risk mitigation, or other efforts or assumptions that could create un-necessary risk to the success of the project. In your response, please consider:

- a) Changes related to legislation and regulations overtime,
- b) Project Governance,
- c) Transition-in related risks,
- d) Ongoing operations related risks,
- e) Multi-vendors solution related risks,
- f) Staffing related risks,
- g) Facilities/Access related risks based on dependencies on ECCC and other GC Stakeholders (e.g. CRA, SSC),
- h) Risks based on dependencies on GC Interfaces,
- i) Risks associated with addressing the cloud IT security, physical security and personnel security,

- j) Risk associated with addressing privacy requirements,
 - k) Others?
- 1) What would you suggest that Canada do in advance of a Bidder being selected that would be of value during the transition phases of the project and help mitigate downstream risk?
 - 2) What due diligence role can a Bidder play to minimize risk associated with information provided though the procurement process (Bidder care and assiduity to validate the requirements) in advance of the contract award? Post contract award?
 - 3) At what point in the process (e.g. pre or post contract award) would due diligence be best performed by the Supplier?

Q 16. User Experience:

One of the top priorities for this proposed Solution is that it be user friendly and perform well in usability testing.

- a) Please describe how your organization currently assesses user experience and usability.
- b) How would you recommend ECCC assess user experience throughout the upcoming RFP process?
- c) Can you propose any clauses that could be incorporated into the eventual contract to allow for user experience testing as part of the acceptance procedures?
- d) What corrective measures could be used to increase the user experience of the proposed Solution after delivery?

Q 17. Facilitating a marketplace:

ECCC desires a healthy and robust marketplace for credit trading. At a minimum the tracking system will need to support transfers between account holders but having additional functionalities or mechanisms for potential buyers and sellers to exchange information that would facilitate trading may be an asset.

- a) What features do you consider important to support a fair, healthy and transparent credit trading marketplace?
- b) Can your solution address some or all of these features?
- c) What safeguards or precautions would you recommend regarding granting individuals other than those directly involved with ECCC's programs (ex. Brokers, aggregators, administrators, credit facilitators) access to trading functionality in the system?

Q 18. Identity verification:

ECCC requires individuals to interact with the tracking system. Confirming the identity of these individuals will be important for ensuring the integrity of the system.

- a) How would you recommend that the identity of registrants or account holders be verified?
- b) Do you have experience providing identity verification services?
- c) What security provisions would you recommend or implement in the case of an account recovery situation?

Q 19. Public access to certain data:

ECCC requires the solution to support making certain data elements public for transparency and accountability to Canadians. We foresee that the system will need to provide some data to the general public that will be available without the need to create an account or log in.

- a) What data management practices would you employ to ensure that data elements that are not approved for public access do not end up in the public view?
- b) Would your solution accommodate some elements being made public or remaining private at the discretion of account holders?
- c) Would your solution support a standard format for the publically available data?
- d) Would your system support an application programming interface (API) for serving the publically available data (e.g.: to display it dynamically on a map hosted on an ECCC website)?

Q 20. Document management capabilities:

Some of the anticipated workflows the system is expected to handle involve document attachments. A solution that has robust document management capabilities is required.

- a) Does your solution support document management?
- b) How are documents stored in your solution?
- c) Can your solution conduct automated completeness checks on uploaded documents?

Q 21. Data import/ingestion capabilities:

Because ECCC intends to develop certain functionality (related to OBPS registration and Facility reporting) in-house, OBPS (not CFS) will require a mechanism to transfer selected data elements from the registration and reporting systems into the tracking system. Other information such as confirmation of payment of the excess emissions charge or remittance of eligible offset credits from provincial offset system for compliance will also need to be transferred to and tracked by the system. Ideally the transfer mechanism would be efficient and designed to reduce the likelihood of errors (ex. File upload rather than manual transfer).

- a) How would you recommend that the need to import data into the solution be addressed?

Q 22. Clarity of requirements:

Based on the description of the requirement provided in Part 1 and PART 2, do you clearly understand Canada's requirements? From your perspective, do you think that the requirements, as stated, would benefit of any improvement? If so, please elaborate.

Q 23. Evaluation methodology:

The GC has been moving towards more agile procurement methods for the procurement of IT in order to ensure increased collaboration and communication with industry, more frequent opportunities for adjustments and improvement to the requirements, greater alignment of requirements with market availability, and more clear and realistic deliverables. The goal of this approach is to reduce risks, for both the Contractor and Client department, and increase the potential for successful delivery.

Recently the GC has used a variety of methods to achieve these goals. These methods include, but are not limited to the following;

- The use of Invitations to Qualify (ITQ) to create pre-qualified pools of respondents
- A Review and Refine Requirements (RRR) phase which allows pre-qualified respondents to participate in the improvement of requirements and evaluation methods
- A Capability and Usability Evaluation (CUE) which allows respondents to provide a proof of concept or prototype for a more in depth evaluation of technical performance, capability and usability.
- Challenged based procurements where industry is asked to respond to a specific challenge rather than prescriptive requirements
- A Gate style evaluations where respondents pass through various gates in order to down select based on technical requirements and performance

Based on the requirements described;

- 1) What procurement methodology would allow ECCC to most effectively determine the best solution to meet their needs?
- 2) Are there any other evaluation methods not listed above that you would recommend for consideration in order to ensure success of the procurement process?
- 3) Do you have any concerns with any of the above mentioned methods? Would any of the above methods preclude you from responding?

PART 4 – APPENDICES

Appendix A – High-Level OBPS Requirements (Draft)

Objectives:

Environment and Climate Change Canada (ECCC) requires a tracking system for the OBPS. The OBPS is established pursuant to Part 2 of the *Greenhouse Gas Pollution Pricing Act* (GGPPA). Specifically, the solution must establish and maintain a system that:

1. Issues surplus credits to a person that is responsible for the covered facility for the quantity of greenhouse gas emissions being below the facility's annual emissions limit;
2. Allows and tracks issuance, transfer, retirement, suspension, revocation and cancellation of those surplus credits;
3. Tracks the compensation obligation for a covered facility when emissions are above the GHG Emissions Limit;
4. Tracks excess emissions charge payments which have been made to the Receiver General as compensation for the excess emissions, including allowing facilities to provide proof of payment;
5. Tracks the remittance of credits toward the compensation obligation of a covered facility;
6. Tracks the remittance of recognized units (i.e. provincial offset credits) toward the compensation obligation of a covered facility including allowing facilities to provide proof that the credits had been retired in the provincial offset system;
7. Applies legislated increases to compensation obligation if compensation is not provided by specified dates; and
8. Adjusts to changes in compensation obligations if the difference between the quantities of GHG emitted and the GHG Emissions Limit that applied during that compliance period changes.

For ECCC, this is a new business line and therefore is looking for information and suggestions to how a potential tool (or tools) may support their new services.

Scope:

What is in scope is to develop a compliance unit and compensation tracking system for OBPS.

The following components are **out of scope**:

1. Registration of covered facilities – Developed by ECCC and launched October, 2018
2. Reporting of emissions, emissions limit, and production made by covered facilities and calculation of the amount of the facilities' compensation obligation or surplus credit – To be developed by ECCC in 2019
3. Submission and storage of documentation to support the annual Facility report
4. Collection of excess emission charge payments made towards compensation obligation - to be developed by the CRA.

Roles interacting with the tracking system:

The expectations of responsibilities for each of the business roles listed below that provide and interact with the services are currently simplified into these main roles:

The expectations of responsibilities for each of the business roles listed below that provide and interact with the services are currently simplified into these main roles:

ECCC Administrator – The appropriate person(s) acting on behalf of the Minister of Environment and Climate Change.

Covered Facility Account Holder – The person responsible for a covered facility who has opened an account in the tracking system or anyone acting on their behalf.

Non-Facility Market Participants – ECCC is still determining what actors will be allowed to open and maintain an account in the tracking system but may include brokers, partner stakeholders (ex. provincial and territorial representatives), or 3rd party verification bodies.

Service Provider – Potential representatives from the vendor or additional service providers who may be involved in the solution. ECCC encourages the RFI respondents to share options for that involvement.

Business services supporting the tracking system

At the highest level, ECCC will need to establish new business services:

- Credit issuance;
- Credit transfers between accounts;
- Credit tracking including status updates and use (i.e. suspension, revocation, retirement, cancellation);
- Compensation tracking and management;
- Reporting and Public Registry; and
- Account management.

Note: Credits can be surplus credits or offset credits (if enabled by regulations) or both.

Credit Issuance

ECCC Administrator shall be able to, within the system, create credits of different types and issue credits, in an ongoing or periodic manner, into accounts.

As part of issuance of credits, the system must ensure that the credits are uniquely identifiable (i.e. unique serial numbers) and must be able to track the type of unit including:

- for surplus credits, the compliance year for which the unit was issued, and
- for offset credits (if enabled by regulations), the start date of the offset project, the year in which GHG reductions or removals are attributed, the offset protocol used, including version number and publication date and the name of the accredited verification body that verified the credits.

Credit Tracking

ECCC Administrator shall be able to:

1. cancel credits upon request
2. suspend credits
3. revoke credits
4. restore suspended credits
5. retire remitted credits from circulation
6. collect and report on any transaction fees established by regulation
7. monitor for fraudulent activities
8. be notified when suspicious activities are taking place

Covered Facility Account Holders shall be able to:

1. receive credits into their account directly from ECCC Administrator
2. hold/bank credits from one compliance period to the next
3. receive notification when credits are issued
4. transfer credits to other accounts in the tracking system
5. request ECCC cancel their own credits)
6. remit credits to meet a compensation obligation

Non-Facility Market Participants shall be able to:

1. receive and hold/bank credits
2. transfer a number of credits to other participants in the tracking system
3. request ECCC cancel their own credits

Compensation Obligation Management

ECCC Administrator shall be able to:

1. Track the status of the compensation obligation for a covered facility (Status: sufficient compensation or insufficient compensation) and:
 - a. receive remitted credits
 - b. retire remitted credits
 - c. withdraw the balance owing in credits from the covered facility's account after the increased rate compensation deadline
2. Ensure compensation is remitted at the correct rate
3. Provide a time-period to reconcile the compensation information in the tracking system
4. Update outstanding compensation obligation for the account holder based on time period
5. Determine outstanding compensation obligation for the account holder based on partial payment
6. Charge a configurable transaction fee for certain types of compliance unit transfers

With regards to payment of the excess emissions charge, ECCC Administrator shall be able to:

7. Receive confirmation that excess emission charge payment was made, the quantity of the payment and date of payment from information provided by a covered facility
8. Import information from CRA on excess emissions charge payments
9. Cross check items 7 and 8

With regards to acceptance of recognized units for compensation, ECCC Administrator shall be able to:

10. Receive information that the credit is eligible for use (e.g. valid)
11. Receive information on retirement details of recognized units including:
 - (i) the total number of recognized units remitted,
 - (ii) the registry where the recognized units were remitted,
 - (iii) the date of transaction,
 - (iv) the transaction number,
 - (v) the serial numbers of the recognized units,
 - (vi) the start date of the offset project,
 - (vii) the year in which GHG reductions or removals are attributed,
 - (viii) the offset protocol used, including version number and publication date, and
 - (ix) name of the accredited verification body that verified the credits.
12. Import information provided by other jurisdiction on the retirement of recognized units.
13. Cross check items 11 and 12

Covered Facility Account Holders shall be able to meet their compensation obligation by:

1. remitting surplus credits / offset credits (if enabled by regulations)
2. providing proof that excess emissions charge payment to CRA has been made, and/or
3. Proving proof that recognized units (i.e. provincial offset credits) have been retired in an eligible provincial offset registry.

NOTE: It is out of scope for the OBPS Tracking System to accept payment of the excess emission charge however, the solution will need to track that the payment was made. The solution will also need to track cases where excess compensation has been made to CRA.

NOTE: It is out of scope for OBPS Tracking System to transfer credits from a provincial offset system to the OBPS tracking system. However, the solution will need to track that any recognized units (i.e. provincial offset credits) were retired in the provincial system and that the credits have not been used for any other purpose except for compensation under the OBPS.

Reporting and Public Registry

ECCC Administrator shall be able to:

1. Determine what, when and how information will be available to the public regarding status and use of credits which may include establishment of a public registry (TBD the exact information requirements of what will be made available to various Roles):
 - # of credits remitted to meet compensation obligation
 - Type of credits remitted to meet compensation obligation (surplus credits, offset credits)
 - # of credits remitted, suspended, transferred, revoked, cancelled, retired, or expired in a certain time period
 - Credit holdings of participating parties
2. report on all activities of the tracking system
3. report on credits by information contained which includes:
 - Unique Identifier
 - Type

- Issuance Date
 - Emissions Year / Vintage
 - Expiration Date
 - Facility to which it was issued
 - Status
 - Transaction History
 - Current Facility Holder
 - Current Account Holder
4. report on Covered Facility Account Holders' activities
 5. report on Non-Facility Market Participants activities
 6. produce Audit Report
 7. report all instances of insufficient compensation to enforcement

Account Management

ECCC Administrator shall be able to:

1. manage the permission levels of the solution
2. review and approve opening of new account(s) in the tracking system
3. verify Covered Facility Account Holders' and Non-Facility Market Participants' identification
4. apply security screening to Covered Facility Account Holders and Covered Facility Account Holders
5. link an account to corresponding facility in ECCC's existing GHG-RP/OBPS registration system
6. monitor accounts and their activities
7. receive notifications about suspicious or fraudulent activities in the system
8. update compensation obligation
9. approve certain trading activities in a tracking account if applicable
10. collect fees / service charges on some types of transactions, if prescribed by regulation
11. suspend a tracking account
12. activate a suspended account
13. close a tracking account
14. provide account support services to users the solution

Covered Facility Account Holders and Non-Facility Market Participants shall be able to

1. open accounts(s) in the compliance tracking system (TBD whether preferred solution should facilitate meeting compliance obligation via multiple account types. Looking for RFI respondents to suggest options.)
2. administer accounts within their own organization
3. maintain accounts user information within 30 days from the change
4. request closure of an account
5. review activities in real-time

Glossary of OBPS Terms

Cancel

Under ss. 180(2) of the GGPPA if an account holder requests that a compliance unit be cancelled, the Minister of Environment and Climate Change must **cancel** it. A person is not entitled to be indemnified for a suspended, revoked or cancelled compliance unit.

CO₂e tonnes

Carbon dioxide equivalent tonnes is the measurement of the quantity of greenhouse gas emissions that has been converted by the multiplying factor specified in the Act.

Compensation obligation

Compensation obligation is the amount of compensation owed by a person responsible for a covered facility when that facility's GHG emissions exceed its GHG Emission Limit.

Compliance unit

Compliance unit means a surplus credit that is issued under [section 175](#) or [paragraph 178\(1\)\(b\)](#) of the GGPPA, a unit or credit that is recognized under the regulations as a compliance unit or an offset credit that is issued under the regulations.

Covered facility

Covered facility means a facility, including a platform anchored at sea, that is located in a province or area that is set out in Part 2 of Schedule 1 of the GGPPA and either **(a)** meets the criteria set out in the regulations for that province or area; or **(b)** is designated by the Minister under subsection 172(1).

Excess emissions

Excess emissions is the quantity of gasses, measured in tonnes of CO₂e, emitted by a covered facility that exceeds the facility's emissions limit for the compliance period.

Excess emissions charge payment

An **excess emissions charge payment** is a monetary payment toward a regulatee's compensation obligation.

Facility report

The **Facility report** is the annual report on emissions and production prepared and submitted by the responsible person in respect of their covered facility, pursuant to section 173 of the GGPPA. The report contains the amount of the facility's greenhouse gas emissions and the amount of product produced for the compliance period.

GGPPA

Greenhouse Gas Pollution Pricing Act (S.C. 2018, c. 12, s. 186)

GHG-RP

Greenhouse Gas Reporting Program

Increased-rate compensation deadline

The **increased-rate compensation deadline** is a date set by regulation by which a regulatee's compensation obligation must be met.

Increased rate

Increased rate is four times the regular rate of compensation.

Minister

Minister means the Minister of the Environment and Climate Change.

Non-Facility Market Participants

A **Non-Facility Market Participant** is a person who opens and maintains an account in the tracking system who is not a person responsible for a covered facility.

Offset credit

An **offset credit** is a compliance unit issued by the Minister under regulations referred to in section 195 of the GGPPA.

Recognized Unit

A **recognized unit** is an offset credit from a provincial offset system that meets the OBPS eligibility criteria.

Regular-rate compensation deadline

The **regular-rate compensation deadline** is compliance date set by regulation by which a compensation obligation must be paid if it is to be made at the regular rate.

Regular rate

Regular rate is one compliance unit for each CO₂e tonne emitted in excess of the emissions limit.

Remittance

Remittance is the submission of compliance units to fulfill a compensation obligation. The Minister may also require that a regulatee remit compliance units where those units were issued in error or are otherwise invalid.

Responsible person

Responsible person means an owner or operator of a covered facility.

Retirement

Pursuant to s. 179 of the GGPPA, a compliance unit that is remitted under [section 174, paragraph 178\(1\)\(a\)](#) or [subsection 181\(2\)](#) or that is withdrawn under [section 182](#) must not be used in any subsequent transaction and the Minister must ensure, in accordance with the regulations, that it is retired from circulation.

Revoke

Under ss. 180 (1) the Minister of Environment and Climate Change may, in accordance with the regulations, suspend or revoke compliance units.

Surplus credit

Under s.175 of the GGPPA, if a covered facility emits greenhouse gases in a quantity that is below the GHG Emissions Limit that applies to it during a compliance period, the Minister of Environment and Climate Change must, in accordance with the regulations, issue to a person that is responsible for the covered facility a number of **surplus credits** that is equal to the difference between that limit, expressed in CO₂e tonnes, and the number of CO₂e tonnes emitted.

Surplus credits are one type of compliance unit that may be used to fulfill a compensation obligation in whole or in part.

Suspend

Under ss. 180 (1) the Minister of Environment and Climate Change may, in accordance with the regulations, suspend or revoke compliance units. A person is not entitled to be indemnified for a suspended, revoked or cancelled compliance unit.

Appendix B – High-Level CFS Requirements (Draft)

Objectives:

Environment and Climate Change Canada (ECCC) requires a solution to facilitate and track registration, reporting, credit generation and credit transactions of regulated parties (obligated parties and voluntary credit generators) who will participate in the Clean Fuel Standard (CFS). The solution must establish and maintain a system that:

1. Allows obligated parties (fossil fuel primary suppliers), voluntary credit generators and third parties to register and maintain credit bank accounts.
2. Allows obligated parties and voluntary credit generators to submit quarterly fuel transaction reports and annual compliance reports; these will include volumes of fuels produced, imported, exported or excluded (e.g. used as feedstock), fuel identification by stream (solid, liquid, gaseous), fuel type (see bullet 4), and carbon intensity value as assigned by a lifecycle analysis tool that ECCC will provide
3. Allows regulated parties to submit, in annual compliance reports, credit transaction details over the reporting period
4. Issues credit units (in tonnes CO₂ equivalent) to credit generating parties for the quantity of avoided lifecycle greenhouse gas emissions achieved through a) emissions reductions projects, b) the production/import of low-carbon fuels, and c) specified end-use fuel switching such as the use of electricity in electric vehicles
5. Calculates CO₂ exceedances of obligated parties (in tonnes CO₂ equivalent) who produce or import fossil fuel
6. Issues credits and tracks the transfer, suspension, revocation, and cancellation of those credits
7. Tracks the retirement of credits that were used to offset CO₂ exceedances for compliance purposes
8. Allows regulated parties to submit supporting documents, annual and quarterly reports, 3rd party verification statements, and verification reports
9. Generates reports for ECCC and the public
10. Allows for reconciliation with business partners

ECCC is looking for information and suggestions on how a potential tool (or tools) may support its needs.

System users

There are potentially six groups of system users that are expected to interact with the system:

Administrator – An individual(s) within a regulated party's organization who is designated and authorized by that party to interact with the system according to their assigned level of authority; their functions may include establishing and activating user accounts, reviewing accounts, uploading report data, signing reports prior to submissions, submitting reports and revising reports.

Credit Facilitator – An individual(s) within a regulated party's organization acting on behalf of the regulated party who can review reports and initiate and complete credit transfers.

3rd party participants– parties such as brokers and credit aggregators, who are allowed to open and maintain accounts in the system for the purpose of initiating and completing credit transfers.

3rd Party Verifier – Accredited 3rd party verifiers who annually review fuel transaction reports will require access to registration, reporting and tracking data of the organizations they represent

Environment and Climate Change Canada – ECCC will require access to the system for compliance verification, administration and reporting purposes, including accessing downloadable reports, data or documentation. ECCC ultimately owns the data once it is submitted into the system.

Public – The public will have access to certain aggregated data, such as volumes of credit trading and possibly credit price

Service Provider – Includes potential representatives from the vendor or additional service providers who may be involved in maintaining and modifying the solution when required. ECCC encourages the RFI respondents to share options for that involvement.

Business services supported by the system

The IT solution will provide the following services to those parties (listed above) who will interact with the system:

- Registration
- Reporting
- Credit issuance
- Credit transactions tracking
- Compliance obligation management
- Public registry
- Account management

Registration

Administrators must be able to:

12. Register the organization they represent, including basic company/facility data and role (fossil fuel primary supplier, credit generator, or 3rd party participant) and types of fuel
13. Designate other users within their company as required
14. Transfer the credit generation ability from a renewable or low carbon fuel producer to a party downstream who acquires their fuel upon agreement, if allowed in the regulation (to be determined)

Credit facilitators and 3rd party verifiers must be able to:

1. View registration details of those facilities they represent

Third parties such as brokers and aggregators, must be able to:

1. Register in the system and view registration details of those facilities they represent

ECCC must be able to:

1. Approve registrations
2. View registration details of all parties

Reporting

Administrators must be able to:

1. Upload reporting data and submit reports (if authorized)
2. Make corrections within the prescribed timeframe

Credit facilitators must be able to:

1. Review reports of the companies they represent

3rd party verifiers must be able to:

1. Review reports of companies they represent

ECCC must be able to:

1. View reports of all parties and verification statements, verified reports and error corrections

System must be able to:

1. Calculate credits and CO2 exceedances based upon data in submitted reports (e.g. fuel volumes, fuel energy and carbon intensity)

Credit issuance

System must be able to:

1. Issue credits within different fuel streams (solid, liquid, gaseous) for emissions reduction projects, renewable fuel production or import, or specified types of end-use fuel switching, such as electricity for electric vehicles
2. Assign a unique serial number to credits, as specified by ECCC
3. Obtain ECCC official sign-off to issue credit units, if required, prior to credit generators receiving them in their accounts

Credit facilitators must be able to:

1. Be notified when credits are issued

3rd party verifiers must be able to:

1. View credits issued and banked in accounts of companies they represent

ECCC must be able to:

1. View credits issued and credits banked in user accounts as required

Credit transaction tracking

System must be able to, for each credit type:

1. Facilitate and track all credit transfers between parties

2. Revoke credits or place credits on hold upon request by ECCC
3. Restore credits that were placed on hold
4. Retire credits from circulation that were used to meet compliance obligations
5. Remove expired credit units from circulation, if expiry limits are placed on credits
6. Prevent and detect fraudulent activities; notify ECCC when suspicious activities are taking place
7. Maintain balance of credits in user accounts

Administrators, credit facilitators and third parties must be able to:

1. Select a receiver for their credits
2. If an auction function is made available, make known that credits are available for auction or credits are wanted for purchase (actual financial transactions are handled outside of the system)
3. Transfer credits to other system users
4. Agree to the receipt of credits

3rd party verifiers must be able to:

1. View credit transactions of companies they represent

ECCC must be able to:

1. View all credit transactions as required

Public must be able to (still to be determined):

1. View some aggregated credit trading data as determined by ECCC

Compliance obligation management

System must be able to:

1. Retire credits once they have been used for compliance
2. Calculate any carry forward of CO2 exceedances into the next year and calculate and add interest to balance for obligated parties
3. Notify ECCC of suspected non-compliance

Administrators or credit facilitators acting on behalf of obligated parties must be able to:

1. View the compliance obligation of the obligated party they represent
2. Use credits towards compliance and confirm that the system has retired those credits
3. View updated balance for any given time period

3rd party verifiers must be able to:

1. Review reports and compliance accounting of companies they represent

NOTE: It is out of scope for the system to accept payments for credit transactions.

Public Access to Registry

ECCC must be able to:

1. Determine what aggregated data will be available to the public in a Public Registry which may include any of the following, yet to be determined:
 - Number of credit units retired, suspended, transferred, revoked, or expired in a certain time period
 - Stream and type of credits created and transferred from process improvements, renewable fuel production/import, end-use fuel switching
 - Value of recently transferred credits

The system must be able to:

1. Report to the public on activities within the tracking system, as determined by ECCC

Account Management

ECCC must be able to:

1. Designate ECCC administrators who will have secure access to the system
2. Review and approve opening of new accounts
3. Verify user identification
4. Apply security screening, if required, to regulated parties
5. Monitor accounts and their activities
6. Assess risk factors of the system
7. Receive notifications about suspicious or suspected fraudulent activities in the system
8. Update credit/CO₂ exceedance balances in accounts if required
9. Approve certain trading activities in an account if applicable
10. Suspend an account
11. Activate a suspended account
12. Close an account

System must be able to:

1. Provide any of the above account management activities as required by ECCC
2. Provide account support services to ECCC and users of the system

Administrators, credit facilitators and 3rd parties, brokers/aggregators must be able to

1. Open, administer and maintain accounts within the system
2. Update account information
3. Request closure of an account
4. Monitor accounts and activities in real-time, according to their level of authorization

Glossary of CFS Terms

Administrator

Administrator is an individual(s) within a regulated party's organization who is designated and authorized by that party to interact with the system according to their assigned level of authority; their functions may include establishing and activating user accounts and uploading data. Administrators with signing authority may also submit reports, initiate credit transfers and view credit transfer activity, access the credit balance for the organization and select/authorize brokers/aggregators to represent them.

Annual report

The **Annual Compliance Report** is the annual report prepared and submitted by the account holder on behalf of a regulated party.

Broker

Broker or aggregator is a third-party user registered in the system specifically to facilitate the transfer of credits between regulated parties. They may own credits, acquire or transfer them.

Cancel

Cancellation is the act in the lifecycle of a credit where a credit is removed from an account and the credit no longer circulates. The canceled credit unit is no longer available for further transactions.

Carbon Intensity

Carbon Intensity (CI) means the amount of lifecycle greenhouse gas emissions per unit of energy of fuel expressed in grams of carbon dioxide equivalent per megajoule (gCO₂e/MJ).

CO₂ Exceedances

CO₂ exceedances are calculated in units of metric tonnes of carbon dioxide equivalent (CO₂e) and are determined with respect to a CFS carbon intensity (CI) maximum standard for a specific fuel stream (gaseous, liquid, solid) in a given year. Fossil fuels produced or imported by obligated parties with a CI greater than the maximum standard for the compliance period will generate CO₂ exceedances.

Credit facilitator

Credit facilitator is a CFS system user assigned by a regulated party, and within the regulated party's organization, designated to initiate and complete credit transfers on behalf of their registered organization.

Credit generators

Credit generators are parties to the regulation that engage in activities which generates credits, by actions that include emissions reduction projects, renewable fuel production or import, or specified types of end-use fuel switching (e.g. electricity for electric vehicles). Credit generators may be **fossil fuel primary suppliers** or **voluntary credit generators**.

Credits

Credits are calculated in units of metric tonnes of carbon dioxide equivalent (CO₂e), and are generated by a) emissions reduction projects, b) importing or producing fuels with a carbon intensity (CI) below the reference carbon intensity value for the stream, and c) specified types of end-use fuel switching, such as the use of electricity in electric vehicles.

Obligated party

Obligated party is any party that is subject to the Clean Fuel Standard carbon intensity reduction requirements. These are **fossil fuel primary suppliers** who produce or import fossil fuels.

Public registry

Public registry refers to the portion of the tracking system available to the public, which shows aggregated data regarding credits and CO2 exceedances and other information as decided by ECCC.

Quarterly report

The **Quarterly Fuel Transaction Report** is the quarterly report prepared and submitted by the Administrator representing a credit generator but not verified by a 3rd party verifier. The report contains the carbon intensity of each fuel produced and the amount of fuel produced for the compliance period. The report also includes any fuel transactions and credits generated and/or traded.

Regulated party

Regulated party is a party that participates in the Clean Fuel Standard and is subject to its rules, including **fossil fuel primary suppliers** and **voluntary credit generators** and **3rd parties** who participate in the credit system.

Retirement

Retirement is the act in the lifecycle of a credit where a credit used for compliance no longer circulates and is not available for further transactions.

Suspension

Suspension is the act in the lifecycle of a credit unit where an active credit is temporarily unavailable for circulation or further transaction.

Third party verifier

Third party verifiers will be accredited; they verify and certify reported information by regulated parties