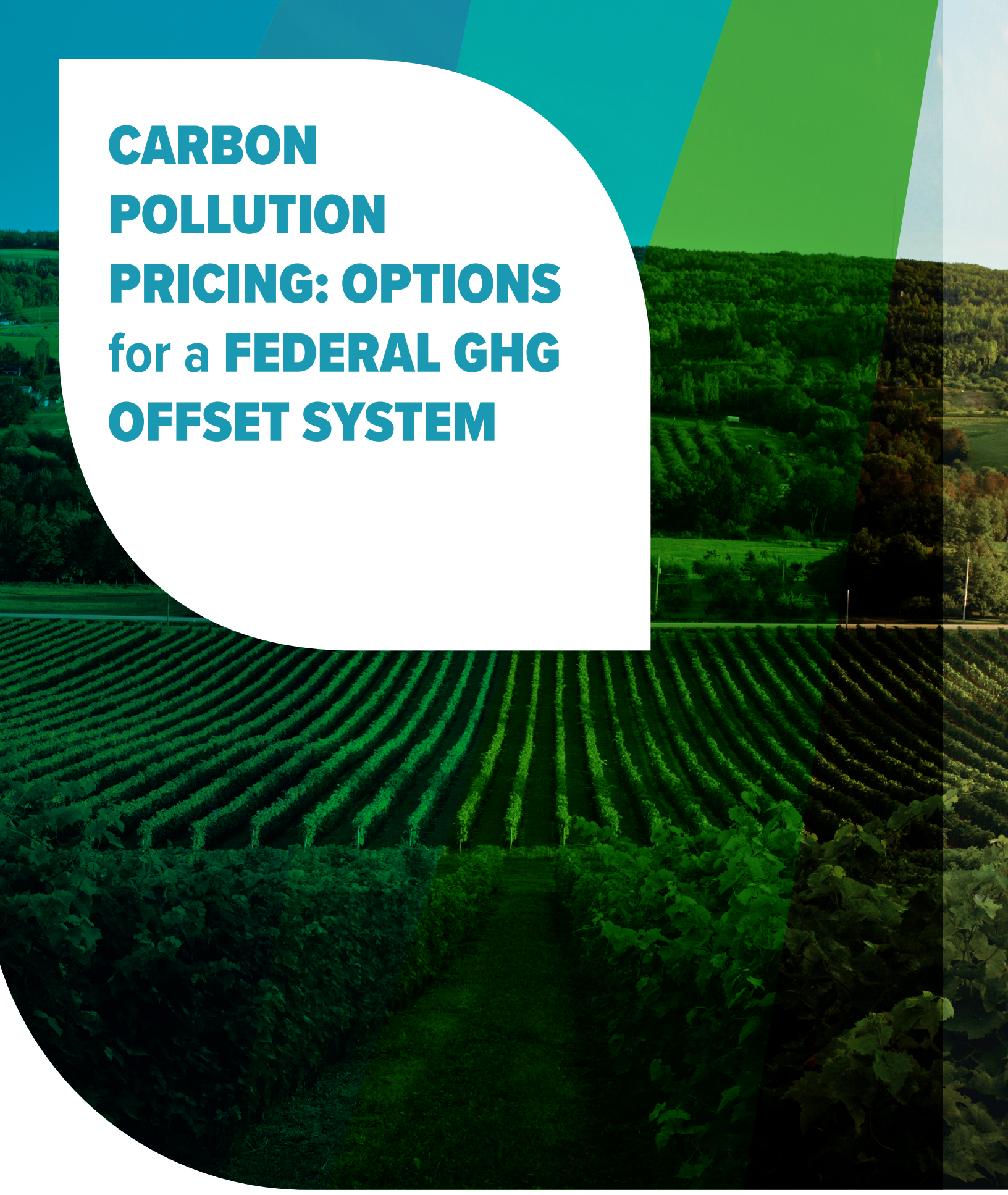
CARBON POLLUTION PRICING: OPTIONS for a FEDERAL GHG OFFSET SYSTEM



Environment and Climate Change Canada
Environnement et Changement climatique Canada

Canada

Cat. No.: En4-374/2019E-PDF
ISBN: 978-0-660-31076-3

Environment and Climate Change Canada
Public Inquiries Centre
12th Floor, Fontaine Building
200 Sacré-Coeur Boulevard
Gatineau QC K1A 0H3
Telephone: 819-938-3860
Toll Free: 1-800-668-6767 (in Canada only)
Email: ec.enviroinfo.ec@canada.ca

Aussi disponible en français

CARBON POLLUTION PRICING: OPTIONS for a FEDERAL GHG OFFSET SYSTEM

Purpose

The Government of Canada in Budget 2019, announced funding for the development of the Federal GHG Offset System to encourage cost-effective domestic GHG emissions reductions or removal enhancements from activities that are not covered by carbon pollution pricing. This discussion paper provides additional details and options for the Federal GHG Offset System being developed under the provisions of the *Greenhouse Gas Pollution Pricing Act* (GGPPA) and seeks input on key system design elements.

Introduction

A price on carbon pollution is a key pillar of Canada's clean growth and climate plan, the Pan-Canadian Framework on Clean Growth and Climate Change (PCF). Pricing carbon pollution is one of the most effective and affordable ways to reduce pollution. A well-designed price on carbon pollution provides an incentive for climate action and clean innovation while protecting competitiveness.

In October 2016, the Prime Minister announced the Pan-Canadian Approach to Pricing Carbon Pollution (the federal benchmark), which recognized that provinces and territories would have the flexibility to develop their own carbon pollution pricing system and outlined criteria all systems must meet 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 requested it or did not have a carbon pollution pricing system that meets the federal benchmark stringency requirements (referred to as "backstop jurisdictions"). Under the *Greenhouse Gas Pollution Pricing Act* (GGPPA), which came into force on June 21, 2018, the federal carbon pollution pricing system has two parts:

1. a charge on fossil fuel (fuel charge)
2. a trading system for large industry, known as the Output-Based Pricing System (OBPS)

As part of the federal government's commitment to ensure carbon pollution pricing applies throughout Canada, the Prime Minister announced on October 23, 2018 when and where the federal backstop carbon pollution pricing system will apply. Based on the assessment of existing and planned provincial and territorial systems against federal benchmark stringency requirements:

- as of April 1, 2019, the federal fuel charge applies in Ontario, New Brunswick, Manitoba and Saskatchewan.
- the OBPS took effect starting on January 1, 2019 in Ontario, New Brunswick, Manitoba, Prince Edward Island, and in two sectors in Saskatchewan (electricity and natural gas transmission pipelines).

To account for their unique circumstances, both parts of the federal backstop will start applying on July 1, 2019 in Nunavut and Yukon. The Northwest Territories will be implementing its own carbon pricing system, aligned with the federal benchmark, on September 1, 2019.

Output-Based Pricing System

In December 2018, the federal government released the Regulatory proposal for the Output-Based Pricing System Regulations under the Greenhouse Gas Pollution Pricing Act (Regulatory proposal for the OBPS) to implement the OBPS that will apply to facilities carrying out certain industrial activities. The OBPS is designed to put a price on carbon pollution from industry while minimizing competitiveness and carbon leakage risks. The system creates a strong financial incentive for the least efficient facilities to reduce emissions per unit of output and for strong performers to continue to improve. Most carbon pollution pricing systems include an approach to address competitiveness and carbon leakage risk for industrial facilities. The government plans to finalize the Output-Based Pricing System (OBPS) Regulations made under the GGPPA in spring 2019.

The OBPS sets an emissions-intensity threshold, or output-based standard (OBS), for each sector under the system. Each facility calculates an emissions limit based on the relevant standard(s) and its level of production. Facilities that emit less than their limit earn credits they can sell or bank for future compliance use. Facilities with emissions above their limit have three options to comply:

- pay the excess emissions charge for each tonne of CO_2e emissions exceeding the limit set at $20/t in 2019, rising to $50/t in 2022;

- remit a compliance unit for each tonne of CO_2e emitted that exceeds the limit; or
- a combination of both.

Compliance units include surplus credits issued to facilities that emitted less GHGs than their limit, federal offset credits and recognized units. At this time, the only units proposed to be recognized as compliance units are provincially issued offset credits that would meet the offset program and offset protocol eligibility criteria in the OBPS Regulations. In addition to program and protocol eligibility criteria, the OBPS Regulations will specify eligibility criteria for credits issued by provinces. The Minister will maintain a list of offset programs and protocols that are eligible to generate recognized units.

Adding federal offsets as a compliance mechanism will broaden the carbon pollution price signal across the economy, and can help to reduce GHG emissions from sources of emissions that are not covered under specific regulations or carbon pricing policies.

Context and Rationale for a Federal GHG Offset System

Offset credits represent GHG emissions reductions or removal enhancements[1] resulting from voluntary actions taken to reduce or avoid emissions from sources or increase removals by sinks. Each offset credit generated by an offset project represents one tonne of carbon dioxide equivalent (CO2e) reduced or removed from the atmosphere, compared to what would have happened in the absence of the offset project activity.

Under the federal OBPS, a covered facility can remit compliance units, including offset credits, to compensate for emissions that exceed their limit. In this way, an offset credit is a substitute for direct emission reductions on the part of the covered facility and provides an opportunity to reduce the cost of compliance. The establishment of a Federal GHG Offset System is expected to increase the supply of compliance units that are available for use under the OBPS. Federal Offset Credits will be tradeable in the same manner as surplus credits in the OBPS tracking system.

Federal GHG Offset System Design Considerations

Because GHG offsets take the place of direct GHG emission reductions at a covered facility, the Federal GHG Offset System will only issue Offset Credits to project activities that represent real, quantified, verified and unique GHG reductions that are additional to what would have occurred in the absence of the project. The design of the Federal GHG Offset System will also take into consideration the following principles:

- Reductions occur in Canada – GHG reductions are domestic and support actions in Canada to achieve climate change targets under the Paris Agreement.
- Complement existing climate policies – Promotes GHG reduction projects across sources of emissions not covered by carbon pricing, generating additional economic opportunities in sectors such as agriculture and forestry.
- Administratively simple – The system is as simple and cost-effective to administer as practical, minimizes burden and costs for participants, while ensuring a rigorous commitment to environmental integrity.
- Builds on experience – The system builds on the experience gained from existing project-based crediting systems and carbon markets in Canada as well as in other jurisdictions.

Environment and Climate Change Canada welcomes comments on all design considerations outlined in this paper.

[1] GHG emissions reductions and removal enhancements will be referred to as GHG reductions throughout this paper.

Alignment with the Pan-Canadian Greenhouse Gas Offsets Framework

Over the course of 2016 to 2018, federal, provincial and territorial governments collaborated through the Canadian Council of Ministers of the Environment (CCME) to develop the *Pan-Canadian Greenhouse Gas Offsets Framework* (Offsets Framework). The Offsets Framework provides guidance to jurisdictions that are developing or operating offsets programs so that over the longer-term, jurisdictions can develop a consistent suite of requirements that could be mutually recognized for transferability and fungibility of offset credits across Canada. The Offsets Framework provides guidance to advance the consistency of offset program requirements to support alignment of offset programs, reduce the administrative burden and risk associated with the offset creation process, and improve fungibility of offset credits.

Under the Offsets Framework, federal, provincial, and territorial government authorities committed to collaborate and coordinate efforts for effective and efficient offset programming across Canada. In particular, processes and practices that support the alignment of the Federal GHG Offset System with other programs across Canada should be considered in order to increase fungibility while also reducing the administrative burden and risk associated with the offset creation process. Environment and Climate Change Canada will align with the Offsets Framework in the design and development of its proposed Federal GHG Offset System.

Canada-Wide Application

The Federal GHG Offset System will support the creation of offset credits in all provinces and territories, with a focus on offset project development in provinces and territories without existing offset systems. This will broaden the incentive to reduce GHGs from sources of emissions not covered by carbon pricing and increase the supply of compliance units available to covered facilities.

Program Administration

Environment and Climate Change Canada will be responsible for the following[2]:

- overseeing the program's ongoing operation including establishing and communicating the Federal GHG Offset System program rules through guidance documents and ongoing education to program participants;
- overseeing Federal Offset Protocol development, review and approval;
- registering offset projects, issuing verified Offset Credits and retiring Offset Credits after they are used for compliance or voluntary purposes; and
- providing compliance and enforcement structures and processes.

Collaboration with Provincial and Territorial Governments

The Federal Offset System will not replace provincial offset systems. The OBPS Regulations will continue to allow recognized units or credits from existing provincial/territorial offset systems to be used for compliance by covered facilities. If new compliance offset systems are developed in Canada, Environment and Climate Change Canada will assess them in accordance with the requirements in the OBPS Regulations.

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[2] In the future, Environment and Climate Change Canada may choose to outsource one or more of these responsibilities to private-sector service providers with government oversight.

The Government of Canada will engage with provinces and territories to facilitate coordination among offset systems in order to avoid double-counting, double-use, or double-issuance of offset credits for the same project activity.

The Government of Canada will work with provinces and territories to enable the alignment of carbon market infrastructure with the intent of facilitating fungibility and encouraging increased investment in offset projects. Agreements may be established with provinces/territories to provide enforcement powers related to offset program implementation, as well as for governance and oversight.

Proposed Key Elements of the Federal GHG Offset System

In order to generate Offset Credits, projects must be within the scope of the Federal GHG Offset System, follow an approved Federal Offset Protocol and must achieve real, additional, quantified, verified, unique and permanent reductions of GHGs.

Proposed Criteria for Offset Project Eligibility

Scope	› Offset project start date of January 1st, 2017 or later. › The project start date corresponds to the date that the offset project activity first began › The offset project must occur in Canada › The offset project activities and GHGs targeted by the project must be covered in Canada's most recent National Inventory Report – including any land use, land use change, and forestry activities.
Real	› The offset project activity must be a specific and identifiable action that results in a net reduction of GHGs and that can be demonstrated to have been implemented in in accordance with the applicable Federal Offset Protocol. › The offset project is "functionally equivalent" to its baseline.
Quantifiable	› An approved Federal Offset Protocol exists for the offset project type, which includes all project and baseline sources, sinks or reservoirs that are relevant for the project. › The GHG reductions from the project are quantified in a transparent and repeatable manner using scientifically-established standards, acceptable statistical precision for the project or equipment type, and conservative assumptions and approaches to avoid over-estimation of GHG reductions.
Additional	› The project activity must be additional to a business-as-usual scenario (baseline) defined for the project activity in the Federal Offset Protocol. › The GHG reductions are surplus to legal or regulatory requirements in the jurisdiction where the project activities will take place. › The project activity is not covered by carbon pricing.
Incremental to other Incentives	› The offset project GHG reductions must be beyond what would have occurred from the receipt of other climate change incentives.

Unique	› The offset project is eligible if the project has not been registered under another offset program (no double registration) › An offset credit has not been issued for the GHG reductions under another compliance or voluntary offset system. › A GHG reduction that has already been used or sold in another compliance or voluntary system or program cannot also be credited in the Federal GHG Offset System.
Verifiable	› A GHG reduction must be verifiable to a reasonable level of assurance by an accredited Verification Body. › The underlying project data and information must be monitored and documented in accordance with an offset protocol. › The verification body must be able to review sufficient evidence, and determine whether the project activities conform to regulatory and program requirements.

Federal Offset Protocol Development

Offset protocols set out a consistent and approved approach for quantifying GHG reductions or removal enhancements for a given project type. A protocol also provides requirements for project planning and operating expectations, including monitoring and data management requirements. These requirements must be followed by a Project Proponent when implementing and reporting on an offset project and must be confirmed by an accredited Verification Body during the verification.

Only project activities for which Environment and Climate Change Canada has approved a Federal Offset Protocol may be eligible to generate Offset Credits.

To minimize costs and accelerate Federal Offset Protocol development, Environment and Climate Change Canada will evaluate the potential to adapt offset protocols from existing provincial and territorial offset systems and adapt these for use across Canada. The Protocol adaptation approach will follow international best practices and *ISO 14080:2018 Greenhouse Gas management and related activities – Framework and principles for methodologies on climate actions, as appropriate.*

Technical Advisory Teams may be created on an ad-hoc basis to help develop Federal Offset Protocols. The focus and composition of the Technical Advisory Teams will vary for different project types. Environment and Climate Change Canada will oversee and facilitate the ad-hoc Technical Advisory Team activities and will engage experts as appropriate.

When developing new Federal Offset Protocols, Environment and Climate Change Canada will follow a transparent process. Stakeholders will have opportunities to provide feedback during the protocol development process. Regular updates to Federal Offset Protocols will also be required as baseline conditions, technology, or other elements of an offset project type evolve. Environment and Climate Change Canada may consider establishing minimum revision time periods and associated processes for updating Federal Offset Protocols.

Protocol Considerations

Environment and Climate Change Canada will base the quantification, monitoring and reporting requirements established in the Federal Offset Protocols on the framework and principles of the international standard *ISO 14064-2, Specification with Guidance at the Project Level for Quantification, Monitoring and Reporting of*

Greenhouse Gas Emissions Reductions or Removal Enhancements. The Federal Offset Protocols will adhere to the principles of relevance, completeness, consistency, accuracy, transparency and conservativeness. Each Federal Offset Protocol will address the following elements:

Additionality

Additionality is the key element of an offset project. A project in the Federal GHG Offset System can only be considered additional, and therefore eligible to generate Offset Credits, if the project activities are above and beyond a business-as-usual scenario that includes any relevant legal and/or regulatory requirements such as carbon pollution pricing. The GHG reduction technology or project activity must not be in common use or be considered common practice. As the additionality of project activities may differ from jurisdiction to jurisdiction across Canada, Federal Offset Protocols should reflect these regional differences to the extent practicable and allow for establishment of jurisdiction-specific baselines.

Leakage

Leakage may occur when the efforts to achieve GHG reductions result in release of GHGs in another location (thereby resulting in no net GHG reductions). Federal Offset Protocols will take into account the possibility of leakage for relevant project types. Federal GHG Offset Protocols will specify how project proponents must assess potential for leakage and identify mitigation approaches for addressing these risks. In cases where leakage may occur despite best efforts to prevent it, the Federal Offset Protocol may specify a discount factor, applied towards the quantity of Offset Credits issued to a project proponent to compensate or account for leakage.

Verifiability

A GHG reduction is verifiable if its quantification is accurate, transparent and replicable, and the underlying data and other supporting documentation confirming the quantification can be made available to a verification body in the future. Federal Offset Protocols will specify requirements for data collection and data management systems and controls, record keeping, and ongoing monitoring that lead to the generation of verifiable data.

Permanence

For project activities that involve GHG sequestration, a Federal Offset Protocol will specify requirements for Project Proponents to monitor permanence of the GHG sinks and reservoirs over the applicable duration of the offset project, mitigate the risk of reversal of sequestered GHGs, and develop a contingency plan which addresses how any reversal (whether intentional or unintentional) will be quantified and handled. Environment and Climate Change Canada proposes that for biological sequestration projects, Project Proponents will be required to maintain a carbon sink for a number of years following the end of the final reporting period in the final registration period. Establishing a liability period for sequestration projects aligns with many other offset programs in North America and will be established around rules for reversals in existing offset systems, review of best practices and comments from stakeholders.

Project Registration

Registration will be required for each offset project. Projects can be registered once Federal Offset Protocols are developed and approved for use in the Federal GHG Offset System. Only reductions that occurred after the federal offset system is in place will be eligible to generate Offset Credits. Registration demonstrates that the offset project is eligible for offset generation and credit issuance, but does not guarantee that Offset Credits will be issued to the project proponent.

At the time of registration, a Project Proponent must demonstrate legal ownership of the credits associated with the GHG reductions or removals resulting from the offset project. These requirements also apply to aggregated offset projects.

Aggregated Projects

Environment and Climate Change Canada recognizes the value of project aggregation for certain activity types. Aggregation occurs when a collection of projects or project activities that are eligible under the same protocol are grouped together by a Project Proponent in order to pool GHG reduction potential and reduce costs that may be related to verification, transactions, and administration. Environment and Climate Change Canada expects to have a separate application for the registration of aggregated federal offset projects. That application process will be specified further in draft regulations and protocols where applicable.

Monitoring and Reporting

Projects must be implemented in a way that is consistent with the Federal Offset Protocol, including the requirements for GHG quantification, monitoring, and record keeping.

Offset Credits will be issued only for the GHG reductions achieved (that is, the GHG sequestration has already occurred) after the project is registered and implemented. The Project Proponent will need to prepare a Project Report to identify: the project, applicable Federal Offset Protocol, the reporting period covered, and the GHG reductions in tonnes of CO_2e that are claimed.

A reporting period is the length of time over which GHG reductions occur for a registered offset project. Environment and Climate Change Canada is proposing a minimum reporting period of one year which will allow a Project Proponent to request Offset Credit issuance annually. Environment and Climate Change Canada is proposing a maximum reporting period of three years in order to allow projects to delay Offset Credit issuance requests, helping to reduce costs for verification and administration.

The Project Proponent would need to submit their first Project Report to cover the first full calendar year after the project is registered. The frequency of subsequent submissions would generally be at the discretion of the Project Proponent but within the three-year reporting period specified by Environment and Climate Change Canada. However, specific reporting requirements may be developed for cases where a project has applied to retroactively start the crediting period prior to the registration date, or for some projects types where annual verification may be required depending on the nature of the project activities.

Crediting periods are separate from reporting periods and specify the number of years an offset project can generate offset credits. Environment and Climate Change Canada is proposing that the maximum crediting period for non-sequestration projects is eight (8) years, if potential exists for renewal, or ten (10) years if no renewal is possible (one-time only). If applicable, at the end of the first 8-year crediting period, Project Proponents may re-register the project for a further eight years. The renewal application would undergo a complete assessment by the Program Authority against the most recent version of the relevant Federal Offset Protocol and the baseline would be defined for the re-registration year that is applied to the project.

In order to ensure that Project Proponents do not increase emissions between crediting periods or release sequestered greenhouse gases and sequester them again during a subsequent crediting period, if a renewal is approved, crediting periods must be contiguous. In some cases, shorter crediting period lengths may be appropriate to recognize changes in baseline conditions (e.g. an impending regulation, faster technological change or increased adoption rates, etc.).

For forest sequestration projects, the proposed maximum crediting period length would be 30 years unless specified in the Federal Offset Protocol, with the potential for renewal. This exception takes into account that forest sequestration projects absorb carbon slowly over a long period.

Third Party Verification and Validation

Verification of reductions achieved from an offset project is important to ensure the environmental integrity of the offset credits, i.e. that each credit represents a real GHG reduction.

All Project Reports must be verified by a Verification Body in accordance with *ISO 14064-3: Specification with guidance for the verification and validation of greenhouse gas statements*. The verification activities will include an assessment of project eligibility according to the Federal GHG Offset System regulation and applicable Federal Offset Protocol, confirmation of the project boundary, review of baseline calculations and modelling, and other requirements pertaining to a site visit.

The Verification Body will be required to provide an opinion, at a reasonable level of assurance of the following:

- The stated amount of GHG reductions is a fair and accurate representation of the GHG reductions achieved in the reporting period and supported by sufficient and appropriate evidence;
- The project was implemented in accordance with the requirements of the Federal Offset Protocol; and
- The project satisfies the eligibility criteria for the Federal GHG Offset System as previously described.

The Project Proponent must provide access to project sites and whatever records and other information the Verification Body needs to conduct the verification.

Verification Bodies would need to be accredited at the project level in a corresponding project type to the ISO Standard 14065:2013: *Greenhouse gases – Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition* by the Standards Council of Canada (SCC), the American National Standards Institute (ANSI), or any other accreditation organization that is a member of the International Accreditation Forum.

Verification Bodies must ensure that they are free from conflicts of interest. The Federal GHG Offset System will limit the number of consecutive Project Reports that a Verification Body can verify to six. Environment and Climate Change Canada is proposing that after reaching this limit the verification body must take a three year break before verifying a Project Report for the same offset project.

Project validation is an assessment by an independent third party of the reasonableness of the assumptions and methods used to quantify the expected GHG reductions or removal enhancements for an offset project on a forward-looking basis prior to implementation of the project activity. Project validation assesses the likelihood that implementation of project activities will result in the GHG outcomes, based on the assessment of the project plan. This assessment considers the justification for the proposed baseline, the project scenario's case for additionality, project assumptions and the accuracy of preliminary calculations for estimated GHG reductions or removal enhancements. Project validation also provides more certainty to project investors, offset credit buyers, Program Authorities and other stakeholders on the project's GHG outcomes.

Validation, while not required to register an offset project, may help ensure the offset project's case for additionality is robust, conservative and justifiable, while also taking into account all relevant legal requirements at all levels of government for the particular sector.

Issuance of Offset Credits

Regulations on the issuance of Offset Credits to the persons that are responsible for the projects will be made in accordance with the provisions under GGPPA.

Federal Offset Credits Issued in Error or No Longer Valid

To ensure environmental integrity, it is necessary to ensure that each offset credit issued by Environment and Climate Change Canada represents a real GHG reduction. Therefore, when errors are identified in a Project Report after credits were issued or credits were found to no longer be valid, it is important to either revoke the offset credit issued in error or that is no longer valid, or require its replacement by the remittance of another valid compliance unit. Liability for offset credit validity will fall on Project Proponents rather than OBPS facilities or other buyers. This seller liability structure is explained further below.

Any Project Proponent will have to notify Environment and Climate Change Canada as soon as possible after the discovery of an error about the information contained within a Project Report or when there is suspicion that offset credits have been issued in error or are no longer valid.

Suspension and Revocation of Federal Offset Credits

As proposed in the regulatory proposal for the OBPS, credits held by the project proponent that are suspected of having been issued in error or of being no longer valid will be suspended. To limit liability of buyers, suspension and revocation will only apply to Federal Offset Credits that are held by the Project Proponent, and replacement will apply in the case where the Project Proponent no longer holds the Offset Credits.

The Offset Credits will only be subject to revocation or replacement if an issue is identified within 8 years from the date in which the Offset Credit was issued.

Regulations will specify that suspension of credits may occur if a Minister has reasonable grounds to believe that the offset Project Proponent did not conform to any and all regulations related to the project activities of the offset project. The Project Proponent will have an opportunity to make representations prior to the final decision of the Minister. If the reasons for the suspension are well founded, the Minister will revoke the suspended offset credit. Otherwise, the suspension of the Federal offset credits would be lifted.

Replacement of Federal Offset Credits

If offset credits are issued in error or are no longer valid and are no longer held by the Project proponent, the Project Proponent will be required to replace credits under section 181 of the GGPPA. The Minister would issue a notice requiring a number of compliance units to be remitted within a timeline. As per subsection 181(3), the Project Proponent will have the choice of remitting compliance units in the quantity requested or paying the applicable excess emissions charge.

Reversals of GHGs Sequestered through Offset Projects

A reversal occurs if the GHGs stored in a reservoir or sink, and for which offset credits have been issued, are later released (back) into the atmosphere. Carbon stored in forests or agricultural soil sinks is vulnerable to reversal by natural disturbances such as pest outbreaks or wildfires or anthropogenic practices such as forest harvesting, or soil cultivation. Reversals can occur at any time during a project. Reversal risks will need to be considered and rules established to ensure effective monitoring systems are in place, risk mitigation approaches are considered and contingency plans are established.

In the event that the GHG reversal is the result of intentional actions or negligence by a Project Proponent or any other relevant party responsible for maintaining the permanence of the sequestered GHGs, this reversal will affect the validity of Offset Credits. In this case, rules related to the suspension and revocation or replacement of Offset Credits issued in error or no longer valid (as described above) would apply.

An unintentional reversal may occur for sequestered GHGs through no fault of the Project Proponent. To deal with the potential of unintentional reversals (particularly for biological sequestration projects), the Federal GHG Offset System Regulations would specify requirements to ensure environmental integrity. This may include specific reporting and verification requirements, and possibly the application of a discount factor or establishment of an Environmental Integrity Account.

Environment and Climate Change Canada is considering the establishment of Environmental Integrity Accounts. An Environmental Integrity Account helps to limit seller liability, thereby creating attractive conditions for offset project development and enabling wider offset usage for more emitters. In the event of an unintentional reversal, the corresponding number of offset credits in an Environmental Integrity Account would be cancelled to account for Offset Credits that have been issued to an offset project in which a reversal took place.

The Federal GHG Offset System Regulations may specify the quantity of generated offset credits retained by the Program Authority in the Environmental Integrity Account. To maintain the environmental integrity of the Federal GHG Offset System and to account for the fact that reversals can be unintentional, the Environmental Integrity Account could be used in lieu of the suspension and revocation or replacement requirement described above.

As an example, Environment and Climate Change Canada will retain a percentage of all improved forest management offset credits. If a forest fire causes the release of GHG emissions from an improved forest management offset project, Environment and Climate Change Canada will cancel offset credits held in the Environmental Integrity Account that represents the quantity of GHG reversals. Environment and Climate Change Canada will not require a Project Proponent to replace offset credits that were reversed unintentionally.

Emissions Trading and Use Considerations

While the main purpose of the Federal GHG Offset System is to generate Offset Credits for use in the OBPS, there may be other uses for Offset Credits along with other associated stakeholder activity. It is expected that private-sector individuals and organizations, such as brokerage services and carbon exchanges may facilitate the trading of Offset Credits. Relevant links may be available on the Federal GHG Offset System website as they are developed. The financial value of offset credits will be determined by supply and demand in the market. There is no guarantee, by the Government of Canada, of the financial value, if any, of offset credits.

Tracking System

Environment and Climate Change Canada is establishing a tracking system for all compliance units under the OBPS as per section 185 of the Act. The tracking system will enable detailed and reliable compliance units tracking including tracking of the issuance, transfer, retirement, suspension, revocation and cancellation of Offset Credits. The tracking system will also be designed with robust security provisions to mitigate fraud and other undesirable market interference.

Rules and operational procedures will be established to ensure that a GHG reduction is issued an Offset Credit once and will have unique serial numbers that will facilitate tracking and proof of ownership. These serial numbers will also help Environment and Climate Change Canada monitor and enforce rules regarding use of Offset Credits in

the OBPS. Transparent procedures will be established to ensure that any Offset Credits can only be used once to meet a compliance obligation or to fulfill a voluntary commitment (i.e., not double-issued, double-sold or double-used). Checks will also be undertaken to ensure that the project/units have not been registered in other systems.

Environment and Climate Change Canada expects to allow any person to create an account in the tracking system to purchase Offset Credits[3]. The tracking system will enable other non-facility market participants including brokers, traders, and other participants, to transfer Offset Credits between accounts. Project Proponents and buyers of Offset Credits may choose to voluntarily cancel Offset Credits in the tracking system for the benefit of the environment or any other reason beyond OBPS compliance purposes.

Regulations for the Federal GHG Offset System will identify the records keeping requirements for Project Proponents. Environment and Climate Change Canada will ensure that key information about registered offset projects from the tracking system is made publically available. This may include administrative information about the project (project start date, location, name of Project Proponent, etc.) and information related to offset credits by type (protocol), year (vintage) and quantity, including active and retired units in publicly accessible registries.

Other Considerations

International Use of Credits

In the Pan-Canadian Framework on Clean Growth and Climate Change (PCF), First Ministers agreed that the priority is to first focus on emission reductions within Canada. However, to complement domestic emission reductions, Canada could acquire GHG reduction units from other parts of the world. Article 6 of the Paris Agreement provides a framework for Parties to engage in "internationally transferred mitigation outcomes" (ITMOs) that allow emission reductions or increased removals that occur in one country to be voluntarily transferred and recognized towards meeting another country's national GHG target. Canada has not yet decided whether it will acquire ITMOs, including emissions reduction credits through international market-based mechanisms, to help meet our 2030 GHG target under the Paris Agreement. Furthermore, negotiations under the United Nations Framework Convention on Climate Change (UNFCCC) are still ongoing for elaborating guidance on the use of ITMOs under Article 6. Canada's use of ITMOs will take into account further details of this guidance, along with other input, as well as further consideration within Canada's overall approach for meeting its national GHG reduction targets. Environment and Climate Change Canada will also consider how offset credits might be used by other international programs such as the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA).

Offset Credits and Credit Stacking Considerations

Various government and industry stakeholders are interested in developing projects that reduce GHGs as well as generate additional environmental benefits. Credit stacking refers to the recognition and generation of more than one type of ecosystem service credit from the same activity. Potential for credit stacking opportunities exists for federal offset credits created through ecosystem-based sequestration or habitat protection project types. Credit stacking increases project complexity and poses multiple challenges, particularly with respect to additionality and quantification. The key to a successful credit-stacking project is to avoid double counting or issuing more than one credit for the same environmental attribute. Credit stacking should also only be considered for new projects, as stacking of credits during project conception is more likely to be additional than stacking of credits for existing projects. Current opportunities for credit stacking are limited because of the emergent status of programs that incentivize other environmental benefits. Environment and Climate Change Canada will consider including rules on credit stacking in Federal GHG Offset System regulations in consideration and alignment with other credit programs.

[3] as per section 186(1) of the GGPPA

Positive Environmental and Social Outcomes

Environment and Climate Change Canada will encourage local stakeholder engagement (if applicable) before offset projects are implemented under the Federal GHG Offset System. Project Proponents that implement projects to create Offset Credits should aim to minimize adverse social or environmental impacts and also maximize non-GHG related benefits for local communities. Projects must also meet all other permitting, engagement, environmental assessment, and legal requirements as applicable.

User Fees

To ensure the financial sustainability of the Federal GHG Offset System, Environment and Climate Change Canada may develop a user fee structure to help cover various administrative costs of operating the system. User fees may apply to activities such as account registration, offset project registration, offset issuance, translation of project documentation, and transaction costs.

Timelines and next steps

Next steps for Environment and Climate Change Canada will include engagement with provincial/territorial governments, Indigenous Peoples and external stakeholders on the design of the Federal GHG Offset System outlined in this discussion paper. Parties wishing to comment on any aspect of this proposal are invited to provide written comments to Environment and Climate Change Canada, by August 30, 2019 at ec.tarificationducarbonecarbonpricing.ec@canada.ca.

Glossary

Accuracy: ISO 14064-2 principle which states, "reduce bias and uncertainties as far as is practical."

Aggregators: Project Proponents who pool similar projects or project activities together in order to manage the project registration and credit creation process on behalf of many independent parties.

Completeness: ISO 14064-2 principle which states, "include all relevant GHG emissions and removals. Include all relevant information to support criteria and procedures."

Conservativeness: ISO 14064-2 principle which states, "use conservative assumptions, values, and procedures to ensure that GHG emission reductions or removal enhancements are not over-estimated."

Consistency: ISO 14064-2 principle which states, "enable meaningful comparisons in GHG-related information."

Crediting periods: Specify the number of years an offset project is allowed to generate Offset Credits.

Offset Credit: a credit issued to a Project Proponent by the Minister under regulations made pursuant to section 195 of the GGPPA representing one tonne of CO_2e reduced or removed from the atmosphere by the offset project.

Federal Offset Protocol: a consistent and approved approach for quantifying the GHG emission reductions, or removal enhancements for a given project type. A Federal Offset Protocol also provides requirements for project planning and operating expectations, including monitoring and data management requirements. These requirements must be followed by a Project Proponent when implementing and reporting on an offset project and are verified.

Functionally Equivalent: The quantity and quality of the services or products in the project must be equivalent to the quantity and quality of the services in the baseline scenario.

GHG sink: process that removes a GHG from the atmosphere

GHG reservoir: component, other than the atmosphere, that has the capacity to accumulate GHGs and to store and release them

GHG project: activity or activities which cause GHG reductions or removal enhancement from a baseline.

GHG removal enhancement: achieved by capturing and permanently storing CO_2 in a reservoir, or increasing the amount of CO_2 removed from the atmosphere in biological sinks such as forests.

Leakage: may occur when the efforts to achieve GHG reductions result in release of GHGs in another location (thereby resulting in no net GHG reductions).

Monitoring: continuous or periodic assessment of GHG emissions, GHG removals, or other GHG related data.

Program Authority: oversees the administration of an offset system. For the Federal GHG Offset System, this is Environment and Climate Change Canada.

Project Proponents: recognized as "persons that are responsible for the projects" under section 195 of the Act, who apply to register the project, and implement the project in a manner that satisfies requirements related to eligibility, monitoring or estimation, quantification, data management, and reporting. They must also engage and pay for an accredited Verification Body to confirm the reductions achieved by the project.

Relevance: ISO 14064-2 principle which states, "select the GHG SSRs, data and methodologies appropriate to the needs of the intended user."

Reporting period: the length of time covered by an offset project report for which the registered offset project is requesting an issuance of corresponding offset credits.

Reversal: occurs when a quantity of the GHG reductions or removal enhancements as part of an offset project, and for which offset credits have been issued, are subsequently released into the atmosphere.

Start Date: The date at which the offset project activity starts.

Transparency: ISO 14064-2 principle which states, “disclose sufficient and appropriate GHG-related information to allow intended users to make decisions with reasonable confidence.”

Verification Bodies: conduct the verification and must be free from conflict of interest and accredited to ISO 14065 by ANSI, SCC or another recognized accreditation body.

Verification: independent assessment as to whether the emission reductions or removal enhancements claimed from the project have been monitored or quantified as specified in the appropriate Federal Offset Protocol and that the quantity of Offset Credits claimed in the Project Report is fair and accurate.

Validation: an assessment by an independent third party of the reasonableness of the assumptions and methods used to quantify the expected emission reductions or removals for an offset project prior to implementation.