



Canadian Council
of Ministers
of the Environment

Le Conseil canadien
des ministres
de l'environnement

PAN-CANADIAN GREENHOUSE GAS OFFSETS FRAMEWORK

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INTRODUCTION

The Canadian Council of Ministers of the Environment (CCME) is the primary minister-led intergovernmental forum for collective action on environmental issues of national and international concern. As part of the Pan-Canadian Framework on Clean Growth and Climate Change, the federal, provincial and territorial governments committed to work together through CCME on a pan-Canadian greenhouse gas (GHG) offsets framework.

Offset credits are GHG emission reductions or removal enhancements generated from project-based activities that compensate for emissions made elsewhere. Offset credits can be generated in both regulatory and voluntary programs.

In regulatory programs, offsets allow regulated emitters to use emission reductions from projects undertaken by project developers on a voluntary basis to fulfil their emissions reductions obligations. GHG offsets are a substitute for direct emission reductions required by the regulated emitter. The demand for offsets at a lower cost than that of the emitter's direct reductions creates financial value for the offset seller in the form of an additional revenue stream for their project or activity.

This framework is intended to provide guidance to jurisdictions that are developing or operating an offset program, with a longer-term goal of having a consistent suite of requirements and transferability of offsets across Canada. It is also intended to support cooperation among jurisdictions by identifying possible collaborative approaches to shared offset program infrastructure and operation.

The guidance is intended to encourage alignment, but is non-binding for jurisdictions and does not require that program design be uniform in all aspects across Canada. Federal, provincial and territorial regulatory structures could include offsets created under slightly different criteria, since jurisdictions may choose to accept offsets from other programs that align with their own requirements. Over time, regulators can work to align the requirements and components of offset programs, leading to greater opportunities for fungibility.

BENEFITS OF A PAN-CANADIAN GREENHOUSE GAS OFFSET FRAMEWORK

This framework serves to:

- support federal, provincial and territorial governments in developing and implementing their offset systems
- provide best practices on offset program design and implementation to support future offset fungibility
- broaden the incentive to reduce emissions

- build public and stakeholder confidence in Canadian offset systems and programs
- provide compliance choices for regulated emitters and the voluntary market
- support clean economic growth
- encourage innovation
- lower the cost of climate action
- build the credibility of Canadian efforts to achieve targets under the Paris Agreement.

OFFSET PROGRAM DESIGN

Achieving Climate Goals and Encouraging Clean Economic Development

Programs should be designed to lower the cost of achieving climate goals and encourage clean economic development.

An efficient approach to achieving GHG targets encourages lower-cost reductions to occur early, while innovations or alternatives are sought to address higher-cost reductions. Therefore, offset programs should include emission sources and sectors that are not easily reached by carbon pricing or regulatory approaches to broaden the pool of low-cost emissions reductions that can occur in the near-term.

Offset programs can encourage clean economic growth by providing additional incentives for emitters to identify opportunities to reduce emissions and for entrepreneurs to create a business case to provide emission reduction technologies to others. Therefore, offset programs should focus on those activities and project types that require a carbon price or an incentive to make them technically, practically or economically viable. Programs should be designed to align with the clean growth pathway laid out in the Pan-Canadian Framework on Clean Growth and Climate Change by making it easy to understand what activities can create offsets and how to get them recognized by the appropriate program.

Credibility and Providing Choice

Offset programs should be designed to support the credibility of actions in Canada to achieve climate change targets, build confidence in offsets in Canada and provide choice to regulated and voluntary emitters.

GHG offsets take the place of direct emissions reductions that follow standard measurement and reporting. A tonne of offsets should always equal a tonne of direct emissions reductions. Therefore, programs should incorporate best practices for quantification and monitoring GHG emissions to ensure the offsets produced in each jurisdiction are creating similar climate value and can credibly support Canada's action under the Paris Agreement.

There must be confidence in the offsets that replace direct emissions reductions. Therefore, programs should make offset project and program documentation and information publicly available in as comprehensive and timely a manner as possible.

Programs and markets that operate in alignment may be more efficient for both buyers and sellers of offsets. Jurisdictions are encouraged to develop the systems and programs necessary to support robust offset markets and fungible offset credits across Canada as early as possible.

Program Design

As uncertainty can present a barrier to investment in offset projects, consistency and certainty of offset program requirements should be considered in the development of federal, provincial and territorial offset programs. Likewise, as differences in programs across jurisdictions may affect the cost and transferability of offsets, the design of offset programs should consider processes and practices that support the alignment of programs across Canada in order to increase fungibility while also reducing the administrative burden and risk associated with the offset creation process.

Before developing an offset program, a jurisdiction needs to consider what the purpose of the program will be, and what role offset credits will play and at which order of government (provincial/territorial and/or federal). This is critical as it will drive the design of the program and directly set the potential for fungibility with other programs. Offset credits may be intended for one or more purposes, such as regulatory market, voluntary market, to achieve a public-sector emission reduction goal, or as an alternative to a direct carbon price. More than one purpose can be addressed through offset program design. A jurisdiction must balance out its domestic needs and interests with the possibility of its offset credits to be fungible with other programs. Determining clear roles of offset credits will also be a key driver for offset project developers as such roles will determine potential buyers and markets for those credits.

A broad range of gases contribute to the global greenhouse effect. Consistent with Decision 24/CP.19, the 100-year Global Warming Potentials (GWPs) provided by the Intergovernmental Panel on Climate Change (IPCC) in its Fourth Assessment Report (AR4) are required for inventory reporting under the United Nations Framework Convention on Climate Change (UNFCCC). Canada should adopt internationally agreed-upon updates in gas coverage and GWPs in line with UNFCCC requirements encoded in UNFCCC reporting guidelines. Programs should include GHGs from the suite accepted by the UNFCCC as and when adopted by Canada.

The geographic boundaries within which a jurisdiction will accept offset projects are important for accounting and enforcement. A jurisdiction's offset system or program design may support the creation of offsets anywhere in Canada and should put in place appropriate agreements with host jurisdictions to avoid double counting.

Jurisdictions that accept offset projects that take place in other jurisdictions may face challenges in enforcing program requirements on the proponents of those projects. Jurisdictions should put in place appropriate agreements with host jurisdictions to provide enforcement powers related to offset program implementation.

The quantification of GHG emission reductions is a critical component of offset fungibility to maintain environmental integrity and equity between the programs, to ensure conservative estimation of emission reductions, and to avoid over-issuance of offsets. When a regulated quantification methodology is available for GHG emissions in a jurisdiction, programs should use the same methodology for offset projects. Programs should apply the most recent ISO 14064¹ part 2 standards for the quantification of offset projects in Canada.

Protocols play an essential role in many offset programs, providing the detailed, project-specific information necessary to meet program and regulatory requirements. Protocols provide guidance to project developers and assurance providers, and can reduce risk to project developers and investors by clearly setting out the requirements, quantification methodology, planning and operating expectations for a project before it is implemented. Protocols provide a vehicle to define any or all aspects of project design and allow for any exclusions, exceptions or mandatory conditions to be defined well in advance of project development. Programs should use the most recent ISO 14064² parts 2 and 3 standards for offset program design and operation.

The start date is the earliest date a project activity could begin in order to qualify as an offset project, regardless of project type. The importance of the start date is linked to the credibility of offsets, in that an offset is commonly awarded to a project proponent based on the assertion that the project was partially influenced by the opportunity to create an offset. If the project began before the program start date, that can be difficult to demonstrate. The start date of an offset program or system should be set based on the date that the GHG policies, policy change or pricing program within the jurisdiction was announced.

In existing programs, project information submitted by a project proponent is verified by third-party service providers, or in some cases program staff. The goal of the verification process is to ensure that projects meet program requirements and that project information is well-documented and easily understood by market actors, governments and the public. Offset programs should include, to the extent permissible by law, sufficient requirements in their program design, protocols, forms, templates, reporting and project management systems to allow for efficient and effective verification by program staff or a designated third party.

The level of assurance across programs will affect the fungibility of offset credits. Programs should require a “reasonable level of assurance” with a maximum ± 5 per cent threshold for materiality.

Sequestration projects are also commonly designed so that the net atmospheric effect of the activity (removal or storage of GHGs) is comparable to the atmospheric effect achieved by non-sequestration projects. Projects that sequester or store GHGs in geologic, organic or man-made reservoirs also include a risk that the stored GHGs may be released to the atmosphere at a future date. If reductions or removals for a specific project type are reversible, provisions can be

¹ISO 14064-2: 2006 Greenhouse Gases Part 2: Specification with guidance at the project level for quantification, monitoring and reporting of greenhouse gas emission reductions or removal enhancements.

² ISO 14064-3: 2006 Greenhouse Gases Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions.

incorporated into the project design to ensure the environmental integrity of the program can be maintained. Programs should include measures to assess and ensure the permanence of project emission reductions or removals.

To ensure permanence provisions are effective, a project must have measures in place for effective monitoring systems, risk mitigation approaches, and contingency plans that address how any affected offsets will be replaced or returned in the event of a reversal that is the result of proponent intention or negligence. Programs should establish measures to assure permanence for reversals that are not the result of proponent intention or negligence. Programs should also develop project contingency plans that include specific mechanisms that are exercisable at the time a reversal is identified, whether or not the proponent is solvent, exists in its original form, and has ownership of or responsibility for the project.

GUIDANCE ON SPECIFIC PROGRAM DESIGN ELEMENTS

Eligibility

Eligibility criteria define the activities, project types, sectors and GHGs that are acceptable by an offset program to possibly generate offset credits. Eligibility criteria can prevent potential double counting and reduce risk for project developers. Sectoral coverage may differ across programs due to regulatory frameworks, which may complicate or prevent the fungibility of offset credits between programs.

Offsets programs should have eligibility criteria that:

- are clearly defined at the sector and potentially the project level
- establish the geographic boundaries for projects
- take into consideration coverage within any associated regulatory programs
- specify eligible GHG types
- take into account the inclusion/exclusion of specific emission sources or sinks by:
 - considering indirect emission sources, in alignment with the most recent ISO-14064-2 standard
 - allowing for the exclusion of emission sources that are unchanged by the offset project to streamline project monitoring.

Additionality

Additionality is the concept that a GHG emission reduction or removal results from an activity or action that is beyond legal requirements and business-as-usual (BAU) expectations. BAU is the

scenario that would likely occur in the absence of the offset program and may be defined by any combination of economics, legal requirements, technology uptake or common practice. Additionality criteria determine concretely which activities and emission reductions are additional and can qualify to claim offset credits. Additionality is critical to a program's integrity and is a key consideration in determining the fungibility of offset credits issued by different programs. In practical terms, divergent regulatory approaches to additionality can be expected to complicate or prevent the fungibility of offset credits between programs.

Offsets programs should have additionality criteria that:

- prevent the inclusion of activities required by law
- prevent the inclusion of activities that are already taking place according to common practice.

Crediting Period

A crediting period defines the length of time over which the project eligibility conditions are believed to be valid and an offset project may be eligible for offset credits. Crediting periods ensure offsets are not issued for activities that have become common practice and provide certainty to encourage investment from project developers.

Offsets programs should have crediting periods that:

- take into consideration the normal adoption rate and current industry standards of a project's activity or technology
- consider whether the project involves sequestration or non-sequestration of GHG emissions
- consider regulations or requirements in place or under development
- align with the timelines for investment return of the project activity or technology without compromising additionality
- include an opportunity for renewal or extension if the financial, technical and market conditions remain the same at the end of a project's standard crediting period.

Programs are encouraged to use a ten-year maximum crediting period with exceptions for unique project types such as carbon capture and storage, agriculture or forest-based projects that may require a longer period to accommodate specific project investment profiles.

Leakage

Leakage is the potential for emissions reduced or sequestered through an offset project to be released at another location not included within the boundary of the offset project. Leakage is most commonly associated with emissions shifting or market effects.

Offset programs should require that leakage:

- be assessed at some stage prior to the issuance or acceptance of an offset in accordance with the most recent ISO 14064-2 standard
- be considered throughout a project crediting period, and additional monitoring be included if the potential for leakage increases over time.

Ownership

Ownership is the right to take credit for an emission reduction that is eligible for an offset credit. Aspects of ownership help ensure only one offset is created for each emission reduction.

Offset programs should:

- require information and evidence to be submitted that can be used to legally demonstrate ownership of an emission reduction prior to the issuance or recognition of an offset
- make adequate information regarding project and offset ownership publicly available to establish credible ownership
- design registry or tracking systems to support the identification and tracking of offsets and avoid double use and double counting of offset credits.

Offset Use

Offset use is the suite of allowable applications of offsets that define how and by whom offset credits can be used, such as for compliance against an emission reduction target. Provisions defining use have no impact on the environmental integrity of an offset. However, limitations on the use of offset credits for compliance may affect compliance costs for regulated entities.

Offset use should:

- be defined by each jurisdiction operating an offset program, including any limits to their use
- be incorporated into program design in such a way as to prevent the use of an offset after its final use, commonly referred to as *retirement*
- make adequate information regarding offset use publicly available to establish credible use or retirement.

Enforcement

Enforcement is the effort to detect and respond to failure by a program participant to comply with the rules and requirements specified by the offset program. Enforcement provisions ensure the environmental integrity of the offset program and are therefore critical when jurisdictions consider recognizing another program's offsets. Less rigorous enforcement provisions may represent a risk to the integrity of the receiving jurisdiction's program.

Offset programs should have enforcement provisions that:

- establish compliance provisions that make the cost of non-compliance higher than the benefits of non-compliance and align with broader enforcement provisions of the applicable carbon pricing program
- clearly assign responsibility for the accuracy, correctness and freedom from material errors and omissions to a single party
- incorporate verification procedures to ensure offsets meet program requirements prior to serialization
- include an assessment of each project's compliance with program requirements
- incorporate infrastructure that is able to track the creation, transfer and retirement or use of offset credits, and that makes key information publicly available (e.g. projects, promoters, reports, quantity of credits issued)
- employ periodic government audits or reviews of the project over the crediting period
- include mechanisms that reinforce the environmental integrity of the program and address the possibility of errors, reversals or fraud.

COLLABORATION AMONG FEDERAL, PROVINCIAL AND TERRITORIAL GOVERNMENTS

Federal, provincial and territorial governments will continue to collaborate on the design and implementation of offset programs in Canada to support the credibility and fungibility of systems. For example, interested jurisdictions can continue to work together to share knowledge and infrastructure (e.g., registries, protocols, standard operating procedures, etc.).

Jurisdictions should consider:

- advancing the consistency and certainty of offset program requirements while supporting the development of federal, provincial and territorial offset programs
- including a suite of processes and practices that support the alignment of programs across Canada in order to reduce the administrative burden and risk associated with the offset creation process and improve future fungibility

- continuing to collaborate to support credibility and fungibility in the design and review of their offset systems.

Offsets programs that span multiple jurisdictions in Canada should consider the pan-Canadian GHG offsets framework in the design of their programs.