

Offsets Regulation under the *Greenhouse Gas Industrial Reporting and Control Act*

Policy Intentions Paper

Consultation Period: July 22 to August 21, 2015



Ministry
of Environment

1. Introduction

The Climate Action Secretariat, Ministry of Environment (“CAS”) is in the process of developing an Offsets Regulation under the *Greenhouse Gas Industrial Reporting and Control Act* (GGIRCA or the *Act*). The purpose of this consultation paper is to seek feedback and comments from stakeholders, First Nations and the public on the proposed Offsets Regulation.

The *Act* received Royal Assent on November 27, 2014. The main intent of the *Act* is to enable performance standards to be set for industrial facilities or sectors by listing them in the Schedule to the *Act*. The *Act* also streamlines several aspects of existing greenhouse gas (GHG) legislation and regulations into a single legislative and regulatory system, including:

- *Greenhouse Gas Reduction (Cap and Trade) Act* (to be repealed)
- *Greenhouse Gas Reduction Targets Act*, Reporting Regulation (to be repealed and replaced by a new proposed Reporting Regulation under the *Greenhouse Gas Industrial Reporting and Control Act*)
- *Greenhouse Gas Reduction Targets Act*, Emission Offsets Regulation (to be repealed and replaced by the proposed Offsets Regulation under the *Greenhouse Gas Industrial Reporting and Control Act*)
- *Environmental Management Act* section 6.1 (repealed and replaced by the requirement for coal fired electricity generation facilities in the Schedule to the *Greenhouse Gas Industrial Reporting and Control Act*)

Liquefied natural gas (LNG) operations are regulated under the new *Act* and an annual GHG emissions limit of 0.16 carbon dioxide equivalent tonnes per tonne of liquefied natural gas produced (tCO₂e/tLNG) has been listed in the Schedule to the *Act*. Regulated operations comply with the emission limit “benchmark” by submitting a compliance report that identifies their emissions relative to the benchmark. For operations that have greater emissions than the limit they must submit to the compliance account one compliance unit for every tonne of greenhouse gas emissions in excess of the emission limit. There are three types of compliance units that are equivalent for compliance purposes: emission offsets, funded units (financial contributions to a technology fund) and earned credits (units issued to regulated operations with emissions less than the annual emission limit).

The existing Emission Offsets Regulation, introduced in 2008 under the authority of the *Greenhouse Gas Reduction Targets Act*, established requirements for offsets in relation to Government’s carbon neutral commitment. The proposed GGIRCA Offsets Regulation (herein afterwards referred to as the “Offsets Regulation.”) would establish a single standard for developing compliance grade offsets issued by B.C., setting out criteria to ensure that offset emission reductions are real, verifiable, incremental and permanent. The Offset Regulation would also include steps for offset project planning, validation, registration, implementation and reporting, verification, issuance and where applicable, ongoing monitoring. Projects that meet the requirements of the Emission Offset Regulation under the *Greenhouse Gas Reduction Targets Act* where the proponent has

contracted to sell all or some portion of the verified emission reductions to government (i.e. for the purposes of Carbon Neutral Government) will be recognized under the Offsets Regulation. However, projects would be grandfathered in this manner only until the end of their current validation period in effect at the time of contract execution.

The development process for the proposed Offsets Regulation consists of five phases:

1. **Scoping** – Ministry staff development of policy intent and an assessment of issues and alternatives.
2. **Ministry Consultation Papers** – outlining the Ministry's proposed approach for the Offsets Regulation in B.C.
3. **Consultation** – with affected stakeholders and the general public, using this intentions paper posted on the Ministry website, as well as through ongoing activities of CAS.
4. **Drafting** – preparation of legal language for consideration by the Minister and Lieutenant Governor-in-Council.
5. **Implementation** – informing Ministry staff and external stakeholders, and developing guidelines and/or best management practices.

This intentions paper provides a summary of government goals and objectives for the proposed Offsets Regulation and its intended purpose. This is followed by a discussion of the Ministry's intentions regarding the contents of the proposed regulation. The paper invites stakeholders, First Nations and the public to provide feedback on the proposed Offsets Regulation prior to it being drafted and implemented.

2. **Government Goals and Objectives**

The proposed GGIRCA Offsets Regulation would establish a single standard for developing compliance grade offsets issued by B.C., setting out criteria to ensure that offset emission reductions are real, verifiable, incremental and permanent. It would also include steps for offset project planning, validation, registration, implementation and reporting, verification, issuance and monitoring.

The purpose of the proposed Offsets Regulation is to set out requirements for GHG reductions or removals to be recognized as offsets under GGIRCA, by:

- Producing compliance grade offsets eligible for use in a compliance regime that reduce the cost of achieving compliance;
- Achieving "beyond Business-as-Usual" reductions by setting appropriate baselines in protocols over a fixed validation period
- Allowing a broad range of emissions reduction and removal opportunities; and

An **offset** is a defined measure representing a reduction in greenhouse gas (GHG) emissions. An offset project consists of a specific activity or set of activities intended to reduce GHG emissions, increase the storage of carbon or enhance GHG removals from the atmosphere. Offsets are commonly measured in metric tons of carbon dioxide-equivalent (CO₂e). One offset represents the reduction of one metric tonne of carbon dioxide, or its equivalent in other greenhouse gases. An offset can be used to compensate for (or "offset") greenhouse gas (GHG) emissions at one source by identifying and tracking the reduction of GHG emissions at another source (and/or the increased removals at another sink).

- Encouraging emission reductions, innovation, and technology development by entities not covered by an emission limit.

3. Background and Context

Existing Emission Offsets Regulation

The Emission Offsets Regulation under the *Greenhouse Gas Reduction Targets Act* set out requirements for GHG reductions and removals from projects or actions to be recognized as emission offsets for the purposes of fulfilling the provincial government's commitment to a carbon neutral public sector. The regulation was developed following a consultation process with stakeholders.¹ For offsets to be recognized under the regulation, GHG reductions must be supported by a verified project report, ownership must have passed to the province and the reductions must not have been previously recognized by another GHG reduction program.

The Ministry's experiences with the Emissions Offsets Regulation, and the feedback gathered on the previously proposed Offset Regulation under the *Greenhouse Gas Reduction (Cap and Trade) Act* helped inform the approach described in this intentions paper. Further knowledge was gathered through the work B.C. conducted with Western Climate Initiative, Inc.² partners to design and develop a regional GHG emission trading and offset system. These experiences have informed the design of the proposed GGIRCA Offsets Regulation.

4. Criteria for an offset

The proposed Offsets Regulation will set out requirements for projects for the GHG reductions and removals to be eligible as offsets under the *Act*. The requirements will help to ensure that projects meet internationally accepted offset criteria. Detailed instructions on how to conduct, monitor, and document the project in a manner consistent with the regulatory requirements will be detailed for each type through protocols established by the Director.

Key internationally accepted offset criteria that will guide the development of the regulatory requirements include:

- Real;
- Baseline;
- Permanent; and
- Verifiable.

¹ For a description of the consultation process and a summary of comments received through the process, as well as additional information regarding the regulation, see links under the Ministry's Emission Offsets Regulation website: <http://www2.gov.bc.ca/gov/topic.page?id=05D6EC5AA4E14079B925C97F816B80F0>

² Western Climate Initiative, Inc. (WCI, Inc.) is a non-profit corporation formed to provide administrative and technical services to support the implementation of a state and provincial greenhouse gas emissions trading program. WCI, Inc website: <http://www.wci-inc.org/>

4.1 Offset Characteristics

One offset unit represents a reduction or removal of one metric tonne of carbon dioxide equivalent (CO₂e) emissions.

Clear Ownership

The project proponent should have a superior claim of ownership of the GHG emission reduction or removal resulting from the offset project to that of any other person.

In practice, the project proponent would need to structure arrangements among the various persons involved in a project so that it is clearly entitled to claim offsets in relation to the emission reduction or removal resulting from the offset project activity. Project proponents may need to resolve entitlement issues through contractual arrangements that clearly set out the rights and responsibilities of all parties involved in the project.

Protocols Established by the Director

The Director would only issue offset units in relation to reductions from accepted projects that are conducted in accordance with protocols that have been established by the Director. Each protocol would be evaluated on the basis of whether it meets the requirements of the offsets system, as laid out in the *Act*.

A number of protocols that have been successfully reviewed for use under the *Greenhouse Gas Reduction Targets Act*'s Emission Offsets Regulation are publicly posted on the Ministry website.³ These protocols may be considered by the Director for use under the proposed GGIRCA Regulation. As with all proposed protocols, they would need to pass through a defined review process before being established as a Director's protocol under the GGIRCA.

Protocols will be subject to regular review by the Director.

Geographic limits

Under the proposed GGIRCA, offset units would be issued for projects located within the province.

B.C. can support a large and robust offset market and there are sufficient offsets generated within the province to meet demand for the foreseeable future. Should there be offset supply shortages in the future; the *Act* includes enabling provisions that would support the recognition of offsets units from other jurisdictions.

Eligibility Date, Period and Transition Period

Once the *Act* and proposed Offsets Regulation come into force, offsets units will be issued for projects that have a project start date no earlier than January 1st 2014 – the year in which the LNG related strategy and proposed regulations were published.

Projects under contract to the Climate Action Secretariat for Carbon Neutral Government would continue to generate eligible offset units until the end of their first validation period provided that they continue to meet the protocol requirements for the remainder of validation period and that no material changes to the project plan have been made.

³ See: <http://www2.gov.bc.ca/gov/topic.page?id=04464B036DC14656B0C1F16E8E642423>

These project proponents can apply for acceptance under the new proposed regulations for additional offset units, per the requirements of the applicable approved protocols, within one calendar year from the expiry of the contract with Climate Action Secretariat.

Projects not meeting these criteria would need to register using protocols approved by the province once GGIRCA and the Offsets regulation are brought into force.

Crediting Period

The crediting period is the timeframe during which project reductions can be quantified and recognized as offsets under the GGIRCA.

The crediting period for non-sequestration offset projects would be 10 years, which could be renewed once for up to an additional 10 years. The crediting period for sequestration projects would be specified by the applicable protocol and would likely be different for biological and physical sequestration (e.g. carbon capture and storage projects) projects. Any individual crediting period should not exceed 25 years without renewal, and the total crediting period including all renewals should not exceed 100 years.

The crediting period would begin on the date the project was accepted or, if the project activities began prior to registration in the B.C. offsets system (and the project is within the eligibility period), the crediting period would begin on the first date project activity is documented in the accepted project plan and determined to be in accordance with an approved protocol.

The applicable approved protocol would lay out the requirements for project renewal. At a minimum, the project should re-evaluate quantification and monitoring methods based on the current version of the approved protocol. At the time of crediting period renewal, a project would have to incorporate any changes to quantification and monitoring methods based on the current version of the approval protocol.

4.2 Real

An offset unit would represent a reduction or removal of one metric tonne of CO₂e emissions that results from a clearly identified action or decision. An offset project's reductions or removals would be quantified using accurate methodologies that appropriately account for all relevant GHG sources and sinks. Offset projects would result in net emissions reductions or removals that take place at sources and sinks controlled by the project proponent unless otherwise specified in an approved protocol.

Quantification

Proper quantification requires that net emission reductions or removals are capable of being monitored and measured or modeled in a reliable and replicable manner that includes all sources and sinks identified in accordance with an approved protocol.

GHG quantification methodologies in approved protocols would be:

- Appropriate to the GHG source or sink;
- Current at the time of quantification;
- Consider local conditions, whenever applicable;

- Account for uncertainty – be calculated in a manner that yields accurate and reproducible results; and
- When uncertainty is above the defined threshold, apply the “principle of conservativeness”⁴ to help ensure the GHG reduction or removal is not overestimated.

Uncertainty and accuracy

Quantification methodologies and measurement techniques should set standards for acceptable statistical accuracy appropriate to the project type and be based on the best available science. They should also minimize bias, except for promoting conservative estimates.

Leakage

Leakage is an increase in GHG emissions outside of a project’s boundaries as a result of the offset project’s activity. Generally, offset programs refer to three main types of leakage:

- *Activity-shifting leakage* – an increase in GHG emissions outside of a project’s boundaries caused by the displacement of activities from inside the project’s boundary due to the actions of the project proponent or other party directly related to the offset project;
- *Market leakage* – higher GHG emissions outside of a project’s boundaries caused by substitution or replacement of goods or services because of the offset project activity impacting an established market; and
- *Ecological leakage* – occurs when one ecosystem has an effect (positive or negative) on an adjacent ecosystem.

A threshold to identify significant leakage should be included in all approved protocols. If leakage is found to be above the threshold, the protocol quantification methodology would be required to account for leakage in the quantification of net emission reductions.

The following methods appropriately applied to review leakage risk for the specific GHG source or sink would be required:

- A quantitative assessment of leakage, whenever possible; and
- When a quantitative assessment is not feasible, a qualitative assessment that determines whether the risk of systematic leakage is significant.

As part of the validation process (see section below), a project proponent would be responsible for demonstrating that functional equivalence will be maintained within a project. Functional equivalence requires that the quantity and quality of service or product in the project case be equivalent to the quantity and quality of service or product in the baseline scenario. For example, a project proponent would not be able to reduce output and claim a reduction if production or demand could shift elsewhere.

⁴ When uncertainty remains high in quantifying the amount of a greenhouse gas emission reduction or removal, the principle of conservativeness should be applied. Offset quantification methods should use quantification parameters, assumptions and measurement techniques that minimize the risk of overestimating emission reductions and removals credited for a given project. The principle should be employed when significant uncertainties arise to ensure a higher level of confidence that all calculated and claimed reductions are real.

4.3 Baseline

Offset project activities must be evaluated against a baseline that reflects conservative assumptions about what would have occurred in the absence of the offsets system.

Protocols established by the Director would contain procedures for selecting or establishing the baseline. Modeling or other methods of developing the baseline shall use assumptions, methodologies, and values that provide assurance that GHG reductions or removals are not over-estimated (consistent with the principle of conservativeness).

When possible, the baseline should be set using a sector-specific or activity-specific performance standard – otherwise a project-specific baseline could be used. Performance standards used to establish a baseline would be set so as to reflect the regulatory requirements and legal requirements of B.C.

When a project specific baseline is used, the baseline would be established so that, at a minimum, it reflects all binding agreements, regulatory requirements and legal requirements in the jurisdiction where the project is located. The project proponent would also have to demonstrate that the incentive of potential offsets recognition helped the project overcome or partially overcome barriers to its adoption.

4.4 Permanent

Applicable approaches to assuring permanence for a project type would be included in the established offset protocol. With respect to offset project activities, *permanence* means either that reductions or removals are not reversible or, if reductions or removals are reversed, the following provisions should be met:

- Projects should be designed so that the net atmospheric effect of their greenhouse gas removal is comparable to the atmospheric effect achieved by non-sequestration projects. The atmospheric effect would be based on the current international standard established by the UN Framework Convention on Climate Change (UNFCCC) processes (E.g. National Inventory methodologies) and referenced in appropriate guidance documents and protocols issued by the UN Clean Development Mechanism (CDM) Executive Board. This international standard may be updated from time to time, and B.C. would adopt the new international standard if/when it is updated.
- If an emission reduction is reversed due to project proponent intention or negligence after offsets are issued, the project developer must provide compliance units in an amount equal to the reversed reductions. The number of compliance units required to be replaced would, at a minimum, be the difference between the total offsets issued for the project and the remaining atmospheric benefit from the sequestration project after the reversal.
- In conformance with the established protocol, a project proponent should follow or establish effective: monitoring systems; risk mitigation approaches; and a contingency plan that addresses how, in the event of a reversal that is the result of project proponent's intention or negligence, any atmospheric benefit of the affected

offsets would be maintained. The contingency plan should include specific mechanisms that are exercisable at the time a reversal is identified – whether the proponent is solvent, exists in its original form, and/or has ownership of, or responsibility for, the project.

- Mechanisms would be established to address reversals that are not the result of a project proponent’s intention or negligence. These mechanisms may include, but are not limited to, the establishment of a contingency account of offsets. Offsets could be credited to the contingency account by the Director based on the reversal risk of the project type and retired should a reversal event (e.g., forest fire) occur.

4.5 Verifiable

With respect to offset project activities, “verifiable” means that assertions related to GHG reductions or removals are well documented, transparent and supported by evidence. Project documentation would be drafted for the purposes of objective review by qualified assurance providers. Validation and verification bodies would be independent third party assurance providers who have been accredited by a member of the International Accreditation Forum, in accordance with ISO 14065 through a program developed under ISO 17011.

Valid

A review would be conducted by a validation body to assess the conformance of a proposed offset project plan against the requirements of the *Act*, the proposed Offsets Regulation and director approved protocol. Third party validation would be required unless otherwise noted in a protocol established by the program authority.

Verified

A review would be conducted by a verification body to assess the performance of an offset project against the requirements of the *Act*, the proposed Offsets Regulation, an established protocol, and accepted project plan. Third party verification would be required unless otherwise noted in a protocol established by the program authority.

Material

Material misstatement in the context of a validation means that errors, omissions or misrepresentations, individually or in aggregate, make it probable that the judgment of a reasonable person evaluating an assertion required by the project plan would have been changed or influenced by the error, omission or misrepresentation. For an offset project, the validation body should be able to state with reasonable assurance that the project plan, including the assertions in the project plan, is fair and reasonable.

Material misstatement in the context of a verification means that errors, omissions or misrepresentation individually or in aggregate make it probable that the GHG project reduction or assertion could be more than 5% overstated. The verification body should be able to state with reasonable assurance that the total reported reductions or removals are free of material misstatement.

4.6 Transparency

The Director provides transparency such that sufficient and appropriate protocol and offset issuance information is disclosed in a timely manner to inform the public and allow offsets

system participants to make decisions with reasonable confidence. Transparency would be balanced with the need to keep confidential any “protected information”, as defined within section 42-Confidentiality of the *Act*.

5 Offsets Creation Process

The steps in the process of creating offsets under the Offsets Regulation are as follows:

1. Project planning
2. Validation
3. Acceptance Project Implementation and Reporting
4. Verification
5. Issuance
6. Monitoring

Appendix 1 to this document outlines what is involved in each step of the process.

6. Provisions for third party assurance providers

The proposed Offsets Regulation would make use of approved third parties to conduct quality control and quality assurance procedures. This reliance on third parties would be supplemented by risk-based audit and review directed by the Director.

Third party assurance provider requirements

Under the proposed Offsets Regulation an assurance body would apply to be recognized by the Director in order to be able to perform assurance work. To receive recognition the body should, be accredited by a member of the International Accreditation Forum, in accordance with ISO 14065 through a program developed under ISO 17011.

Limitations on Applicant Assurance Bodies

A validation body applying to the Director for acceptance of a project plan must be an accredited validation body in the relevant sectoral scope otherwise, the application for certification would not be considered by the Director.

When a Project Proponent submits their application for issuance of offset units to the Director, the verification body that provided the unqualified verification opinion should be approved as an accredited verification body in the relevant sectoral scope.

The body that provides the verification opinion of record for the *final* project report within a given crediting period should be approved as an accredited verification body in the relevant sector at the time of application for the issuance of offsets units.

7. Providing Comment

Written comments on the proposed intentions of the Ministry outlined in this paper are being solicited for a 30-day period. Following review of comments and submissions, the Ministry will complete legal drafting of the regulation for legislative review and implementation.

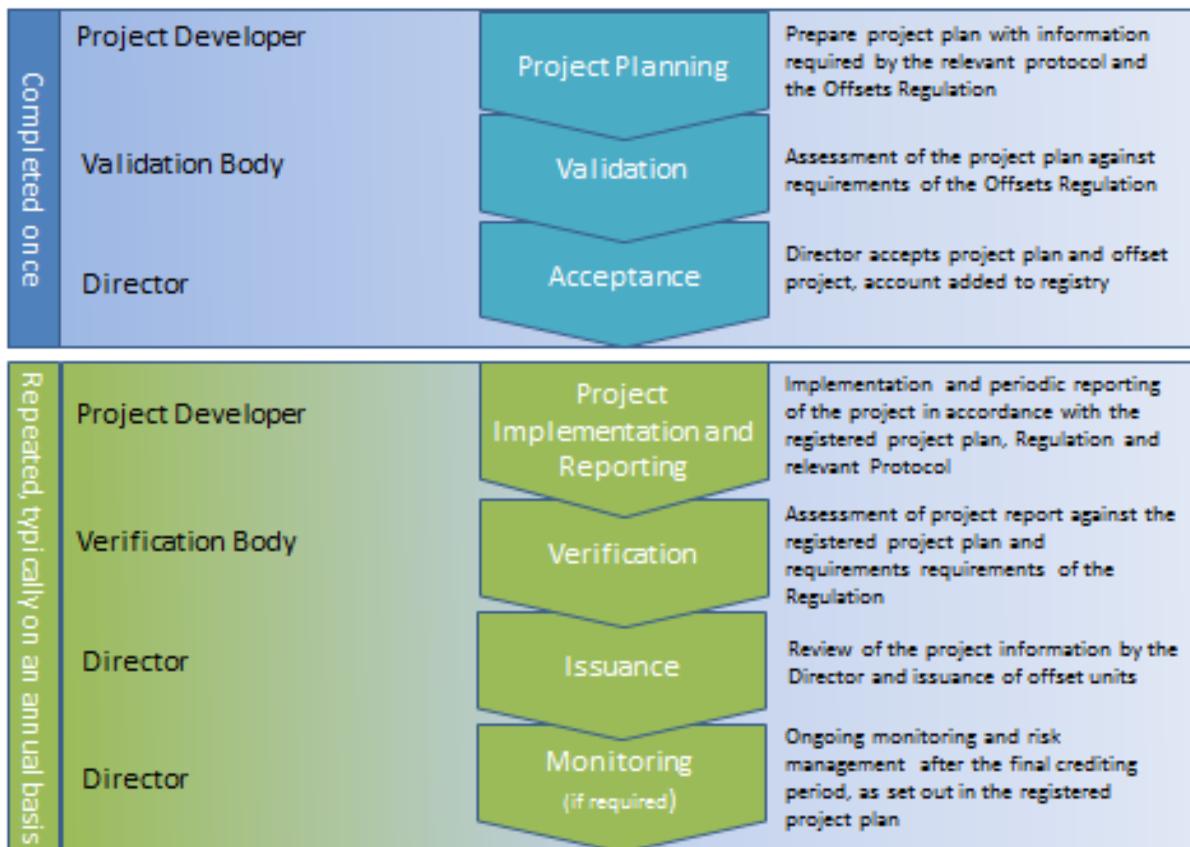
Comments received will be treated with confidentiality by Ministry staff and contractors. Please note that comments you provide and information that identifies you as the source of those comments may be publicly available if a Freedom of Information (FOI) request is made under the *Freedom of Information and Protection of Privacy Act*.

Those interested are invited to submit comments in writing to:
climateactionsecretariat@gov.bc.ca. Please include the following subject line “GGIRCA Offsets Regulation comments” in your email.

Comments to the Ministry should be made on or before August 21, 2015.

Appendix 1: Illustrative offsets process

This section provides a summary description of the seven activities and requirements that would be necessary to have a project activity recognized as an offset project under the proposed Offsets Regulation.



Step 1: Project plan

Project plans must provide all project-related information required by the relevant protocol and the requirements of the Offsets Regulation. Development of the project plan is the responsibility of the Project Proponent.

For a project to be a valid source of offsets under the Offsets Regulation, the project plan must be prepared, validated and then submitted to, and accepted by the Director.

Step 2: Validation

Validation is the assessment of a proposed offset project plan against the Offsets Regulation and requirements of an established protocol. Validation includes review and assessment of project

information for conformance with system criteria and alignment with an appropriate protocol. It also includes review of quantification methodologies, monitoring plans, baselines, standards, calculations, assumptions, factors, forecasts and assertions.

Project Proponents must use a protocol approved by the Director. Where a suitable established protocol is not available, Project Proponents may develop their own appropriate protocol in accordance with the proposed Offsets Regulation.

The Project Proponents are required to obtain an unqualified validation opinion from an accredited Validation Body recognized by the Director in order to have a project registered. The validation statement would be posted publicly along with the accepted project plan.

Step 3: Acceptance

Acceptance proceeds following receipt of an unqualified validation opinion and due diligence for completeness conducted by the Director. An unqualified opinion occurs when a verifier concludes that the assertions made in the Project Report give a fair and true view in accordance with the designated protocol.

Acceptance is a prerequisite for project report verification and issuance of offset units. The acceptance itself establishes the plan of record for conducting and assessing the project and initiates the crediting period.

Following acceptance the project plan and validation statement will be posted on a publically available website.

Step 4: Project implementation and reporting

The Project Proponent must implement the project in conformance with the registered project plan. This includes all specific abatement, monitoring, measurement technology, equipment and configuration as defined in the registered project plan.

Annually, unless otherwise defined in the registered project plan, the Project Proponent must complete a project report in accordance with the format, content and timelines defined in the registered project plan and the requirements of the proposed Offsets Regulation and applicable established protocol.

Step 5: Verification

Verification is the process of third party review of offset project reports and related project information to ensure that claimed emissions reductions have been achieved in accordance with the registered project plan.

The Project Proponent must obtain an unqualified verification opinion from a Verification Body recognized by the Director to satisfy their reporting obligation prior to submitting their application for issuance of offset units to the Director. The verification statement would be posted publicly along with the project report.

Step 6: Issuance

Prior to issuance, the Director must review the submitted project information submitted, including the project report, verification statement and conflict of interest statement.

Unless the Director has reason to believe, based on the review of project materials, from their review that the project information and/or verification report contains material errors, omissions and misrepresentations, offset units will be issued to the Project Proponent's account within the Registry in an amount equal to the reductions identified in a verified project report.

Once offset units are issued they would be fungible compliance units accepted towards compliance under the GGIRCA.

Step 7: Monitoring

For removal projects (e.g. biological sink, or carbon capture and storage), after the final reporting period of the final crediting period, the Project Proponent must continue to monitor and risk-manage the project in accordance with the registered project plan.

The Project Proponent is required to monitor and risk manage the project in accordance with the registered project plan and submit a monitoring report in accordance with the proposed Offsets Regulation at the frequency set out in the relevant established protocol.