THE ESSENTIALS: IMPLEMENTING A GREENHOUSE GAS OFFSET PROJECT

If your community is interested and ready to implement an offset project, the following steps describe the process. Trusted partners with experience in carbon markets and offset project development may be able to help build capacity and develop the technical knowledge needed to implement a greenhouse gas (GHG) offset project.

1. Selection of Offset System and Protocol

Each offset system has its own requirements for participation, so it is worth assessing the options available for your project type and location.

Having a sense of who might buy your offset credits should be considered when choosing to participate in a particular offset system. If your project offers significant additional benefits, such as biodiversity or habitat protection, it may be attractive to buyers in the voluntary market. Credits issued by offset systems geared towards the compliance market may be of most interest to large GHG emitters subject to regulatory requirements. Depending on supply and demand, offset credits generated for the compliance market may sell for a higher price than those directed towards the voluntary market.

The offset system you select must have an offset protocol available for your offset project type.

Identify the relevant offset protocol based on the project activities and ensure your project can meet the requirements of the offset system and the relevant offset protocol.

2. Planning an Offset Project

The planning phase of an offset project may require substantial time and effort; however, this phase will help ensure the success of the project. Some offset system administrators may require project proponents to submit a project plan prior to project registration.

3. Validation

Some offset system administrators require project proponents to engage a qualified, independent third party to check project information for correctness prior to project registration. The validator will provide an opinion as to whether the project proponent has designed the project according to the requirements set out in the protocol and can expect to successfully generate the estimated number of GHG offset credits.

Most systems do not require validation; however, validation may still be helpful to provide confidence that the project will generate the expected credits (and may be helpful in getting financing for the project), particularly if a project proponent does not have previous experience with offset projects. The project proponent is responsible for hiring and paying the third party to do the validation. A company with experience in the specific offset system and project type, as well as GHG accounting should be selected.

4. Registration of Project in the Offset System

All systems require project proponents to provide specific information about the project as part of the registration application. The procedures and information required to register the project will differ by system, but required information can include:

A. Project Summary

- Includes project description, location, GHG being reduced or removed, start date and the protocol that is being used.

B. Entitlement to GHG Reductions

- An offset project proponent must demonstrate entitlement (ownership or rights) to the GHG emission reductions or removals and the offset credits generated by the project.
- This is important so that there are no competing claims on the same GHG reductions and so that they are not counted twice.
- Some funding programs may claim entitlement to all or part of the reductions achieved by a project, so it is important to understand how receipt of government funding for the project activity may impact the ability to participate in an offset system.
- Establishing entitlement to GHG reductions and removals and the resulting offset credits may take time, so it is important that the community begin to determine their entitlement in the early stages of project development.
- There are three common scenarios:
    - **Project is on private land:** The project proponent is the landowner or has a legal agreement with the landowner that assigns entitlement to GHG removals or emission reductions from activities on the land.
    - **Project is on Reserve land or land owned by the community:** The project proponent is the community or has a legal agreement with the community that assigns entitlement to GHG removals or emissions reductions from activities on the land.
    - **Project is on Indigenous traditional territory on Crown Land:** Entitlement to GHG removals or emission reductions rests with the Crown until assigned otherwise. Communities would need to come to an agreement with the provincial or federal government in order to demonstrate entitlement to GHG removals or emission reductions. In BC, these agreements are called “Atmospheric Benefits Sharing Agreements”.

C. Baseline Scenario and Project Scenario

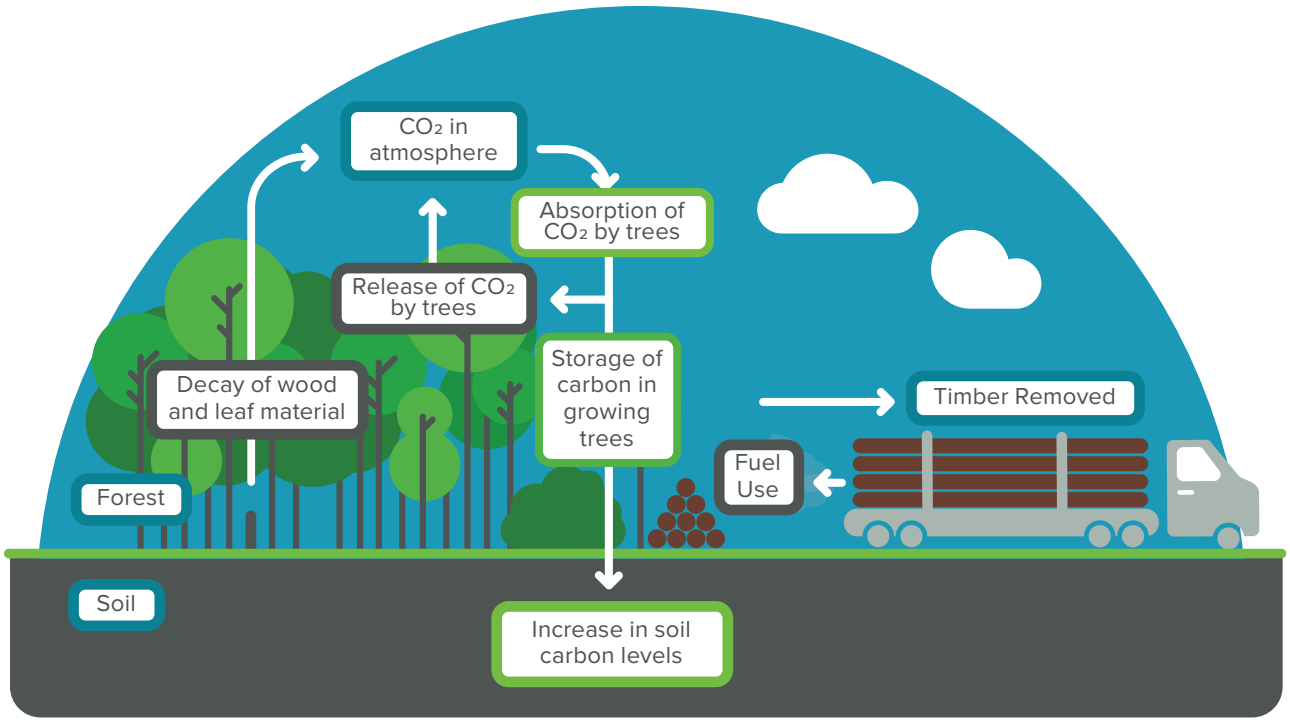
- The baseline scenario (also known as the business-as-usual case) is a description of the activities and GHG emissions that would have occurred without the implementation of the offset project.
- The project scenario is a description of the activities and an estimate of the GHG emission reductions or removals that will be achieved by the offset project, according to the offset protocol

D. Identification of Sources, Sinks, and Reservoirs

- **Source:** A process that releases GHGs into the atmosphere. Sources can include fuel combustion or fertilizer use.
- **Sink:** A process that removes GHGs from the atmosphere. Sinks include the capture and storage of carbon in plants, trees and soils.
- **Reservoir:** A component that has the capacity to accumulate, store and release GHGs. Reservoirs can include plants, trees and soils.

- Include all relevant GHG sources, sinks and reservoirs for the project activity as described in the offset protocol.
- A protocol may allow certain emissions sources to be excluded from the GHG accounting if the source is not impacted by the project activities.

Examples of GHG Sources, Sinks and Reservoirs in a Forest Offset Project



Adapted from https://www.forestresearch.gov.uk/tools-and-resources/statistics/forestry-statistics/forestry-statistics-2017/uk-forests-and-climate-change/carbon-cycle/

E. Additionality

- A project proponent will have to demonstrate that the GHG reductions achieved by the project would not have occurred without the project, i.e. they are additional.
- Key aspects of additionality are that the project activities are not already common practice or required by regulations.
- In some offset systems it is up to the project proponent to show how their project is additional because there are certain barriers to its implementation.

F. Risk Mitigation Plan

- For projects that increase the capture and storage of carbon in plants, trees, soil, or geologic formations, project proponents will need to assess the risk that the carbon will later be released into the atmosphere due to unforeseeable events.
- A risk management plan includes a description of any measures and monitoring activities to reduce that risk.
- Examples of risks for a forest project are natural events such as wildfire, insect infestation or windstorms.

G. Leakage

- Leakage occurs if an activity or demand for the products of an activity shift to another location when the project is implemented. This causes increases in GHGs elsewhere. An example is reducing forest harvest in one area leading to increases in forest harvest somewhere else.
- Identify characteristics of the project that will affect the rate of leakage.

H. Estimate of GHG reductions

- Include an estimate of the GHG reductions or removals that will be achieved by the project, based on the rules and methodologies in the GHG offset protocol. A consultant or project partner with expertise in quantification can assist in determining this estimate.

GHG Quantification

Quantification is the process of collecting data and calculating the amount of GHG reductions or removals achieved by the project and, therefore, the number of credits that are generated.

Emissions Factors

Emissions factors are used to convert data about activities (e.g., volume of fuel consumed, amount of electricity used or quantity of fertilizer applied) into GHG emissions data.

5. Implementation

The offset project is carried out following the rules of the offset system and protocol. This includes the activities to reduce or remove GHGs, but also the collection of information and maintenance of records needed to quantify (measure and calculate) and verify the reductions or removals

6. Monitoring

The GHG emission reductions or removals are quantified using methods set out in the selected offset protocol. This can include using information about the project activities (amount of fuel, electricity or fertilizer used, amount timber harvested, etc.) and emissions factors for those activities to estimate the amount of GHGs emitted as a result. In other cases, computer models are used to estimate emissions. The approach to estimating GHG emissions and removals from agricultural land or forestry includes a combination of repeated measurements and computer modeling.

Offset projects that involve increasing the biological storage of carbon in plants, trees, soil or geological formations must monitor the permanence of those GHG removals during the project and after the crediting period ends. A project monitoring plan must include:

- Procedures for gathering and managing information
- Description of how the sources, sinks and reservoirs will be monitored

7. Reporting

Reporting allows for transparency and accountability of GHG offsets projects in an offset system. The project proponent needs to regularly submit verified project reports to the offset system administrator in order to receive offset credits. Reporting requirements are set out in offset system protocols and rules.

8. Verification

Verification is an important step to ensure the quality and integrity of the offset project, and create confidence in the accuracy of project reports. Once a project proponent operates the project for a specified amount of time (often a minimum of one year), the project proponent must hire a qualified, independent third party Verification Body to confirm:

- the offset project has been implemented in accordance with its protocol and the rules of the offset system.
- the amount of GHG reductions or removals achieved is accurate.

The project proponent provides monitoring information and other project records to the Verification Body. The offset system rules will specify verification requirements, including the experience and professional qualifications or accreditation that the Verification Body must possess.

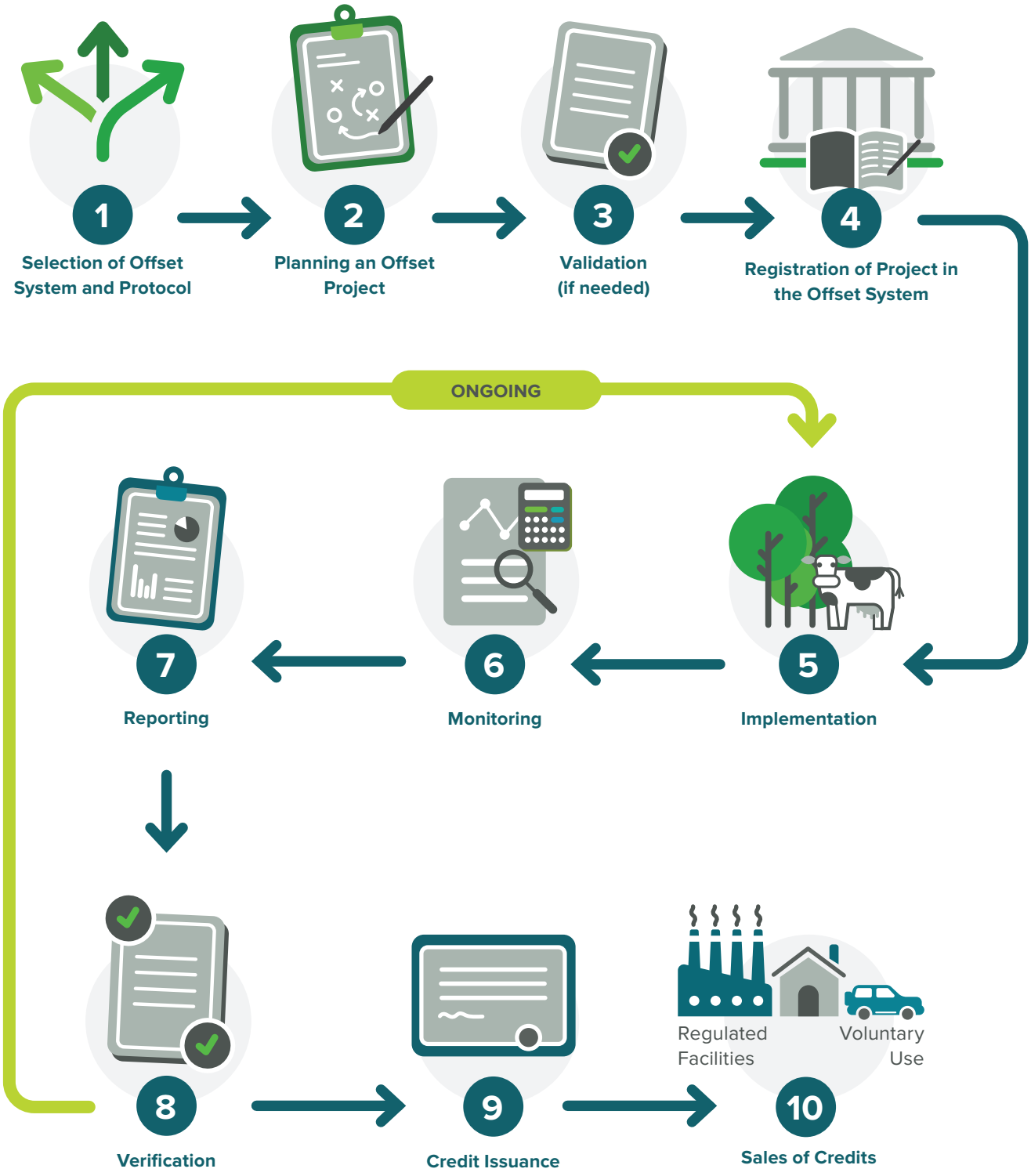
9. Credit Issuance

Once the offset system administrator is satisfied that all system rules have been followed, they will issue GHG offset credits to the project proponent. According to the offset system rules, the program administrator may hold back a certain number of credits generated by the project in a buffer pool or environmental integrity account. The program administrator would draw from the pool to make up for credits issued by the offset system that they later found to be invalid.

10. Sale of Credits

Although the sale of offset credits can be seen as the final step of an offset development process, it is helpful to understand early in the project development process who will buy the credits, how many credits they will buy, and the price they will pay per credit.

Because offset credit prices can change, there is a trade-off between price certainty if purchase agreements are negotiated in advance, and trying to sell at the best possible price. Offset credits can also be sold directly to the user of the offset credits or to an agent such as a broker or wholesaler. Selling to an agent means the agent does the work to find buyers in the market. Selling directly to the user requires more work to find buyers and negotiate sales agreements, but may allow credits to be sold at a higher price.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