

# THE ESSENTIALS: GREENHOUSE GAS OFFSET PROJECTS

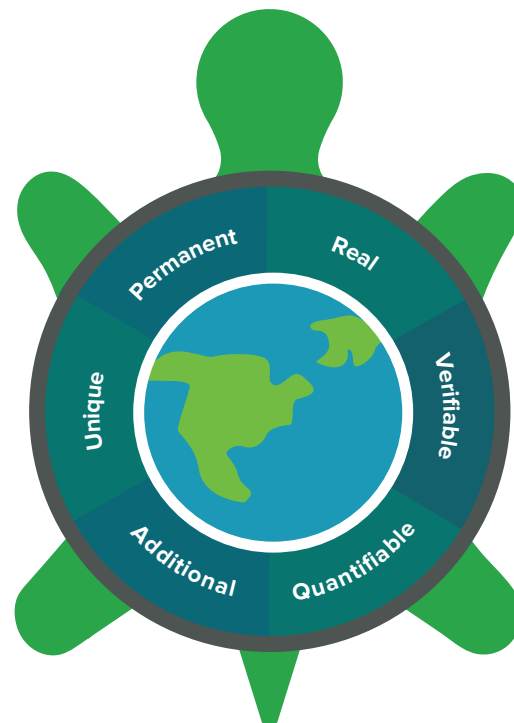


Offset project proponents generate offset credits through voluntary activities that reduce greenhouse gas (GHG) emissions or increase the removal and storage of GHGs from the atmosphere, in accordance with an offset protocol. The GHG reductions or removals achieved by the project are quantified (measured and calculated) and verified by a qualified, independent third party according to the offset system rules.

Offset systems are based on the following principles to ensure there is a high degree of trust in the system. An offset project must follow all of these principles so that there is confidence in the offset credits generated.

## SOME OFFSET PROJECT TYPES INCLUDE:

- Better management of forests to keep more carbon in trees / soil
- Avoiding releases of methane gas from landfills
- Taking action to protect forests or grasslands from development (so stored carbon is not released)
- Switching to chemicals in refrigeration systems that cause less global warming
- Composting organic waste instead of sending it to the landfill
- Tree planting
- Capturing methane gas generated from livestock manure
- Increasing the amount of carbon stored in agricultural soils through adoption of regenerative practices



**Real:**

The offset project must achieve GHG emissions reductions or removals through a specific and measurable activity. The project proponent needs to demonstrate that the GHG reductions or removals have actually been achieved.

**Additional:**

The offset project must reduce or remove GHGs beyond what was going to happen without the offset project, also known as the baseline scenario or business-as-usual case.

If the GHG reductions or removals would have occurred without the offset project, the project is not additional.

**Quantifiable:**

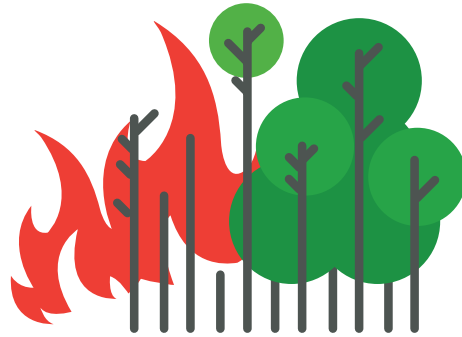
The offset project proponent needs to accurately account for the GHG reductions or removals they achieve, in accordance with the offset protocol they use. This means using approved methods and measurement devices to collect data and calculate GHG reductions or removals.

**Unique:**

An offset project can only be registered under one offset system at a time and the GHG reductions can only be credited once. Ensuring uniqueness avoids situations referred to as double counting, which can lead to an overestimation of the total GHG reductions achieved by the offset project.

**Verifiable:**

Information about the project must be collected and recorded so that this information can be reviewed and confirmed by a qualified, independent third party.

**Permanent:**

There may be a risk that the carbon stored by a project is released in the future (either voluntarily or involuntarily). For projects that increase the capture and storage of CO<sub>2</sub> in plants, trees, soils, or geological formations, or prevent the release of carbon, the project proponent must ensure the permanence of the GHG removals or emissions reductions for a required amount of time.

- Offset systems commonly require that CO<sub>2</sub> storage be maintained for significant periods, up to 100 years after the offset credits are generated.
- Offset system administrators may hold back some portion of the offsets credits generated as a form of insurance that can be used in case there are involuntary releases of stored CO<sub>2</sub> in the future.
- If project proponents release the stored CO<sub>2</sub> on purpose (such as by cutting down a forest), they may have to pay back the credits they were issued.

In addition to these principles, an offset system will have specific rules about what projects can participate in the system.



## Scope

Scope defines the types of activities or characteristics a project must have in order to register to generate offset credits. This may include project start date, location, project activities and what GHGs are being reduced or removed.



## Project Start Date

The project start date corresponds to when the project activity begins. The project activity start date is usually defined by the protocol but is typically when work has started to implement the project or when GHG reductions begin. A project start date is important because projects that start before the allowed start date in the offset system are not considered additional. A project must have started on or after the allowed start date to be able to register in the system.

## Project Location

Offset systems and protocols apply to specific geographic regions where offset projects must be located. An offset system or protocol might be applicable across the country, or only in a single province or region.

## Project Activities

Not all activities can generate offsets. An offset protocol will identify which activities can generate offset credits.

## Targeted GHGs

While there are many different activities that are good for the environment, GHG offset systems are focused on projects that reduce or remove greenhouse gases. Different offset projects reduce or remove different types of GHGs. Forest projects target CO<sub>2</sub>, while waste projects often target methane (CH<sub>4</sub>). An offset system or protocol may identify which GHG reductions or removals can generate offset credits.

