

The User's Guide to Carbon Offsetting



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Voluntary carbon offsetting consists in funding projects that seek to reduce or sequester greenhouse gas emissions. Each ton of greenhouse gas avoided by an offset project, expressed in tons of CO₂ equivalent, is certified by a carbon credit.

Whether it be for the purposes of manufacturing, heating their premises, or in the business trips made by their staff, companies produce carbon dioxide (CO₂), which, when released into the air, helps increase volumes of greenhouse gas (GHG)—the biggest cause of global warming. Voluntary carbon offsetting seeks to neutralize those activity-generated emissions that cannot be eliminated.

Any business intent on complying with the 2°C objective of the 2015 Paris Agreement is duty-bound to reduce its CO₂ emissions to that maximum level. Whether this is performed through increased energy efficiency or renewables, it may take some time to achieve carbon neutrality. In the meantime, the business can opt to offset those stubborn residual emissions. Carbon offsetting is no substitute for the efforts made to cut energy consumption and CO₂ emissions, but rather it is an ancillary activity. Carbon offsetting is therefore an essential factor in financing energy transition and limiting global warming to two degrees Celsius.

The following definition of carbon offsetting can help investors better understand this concept:

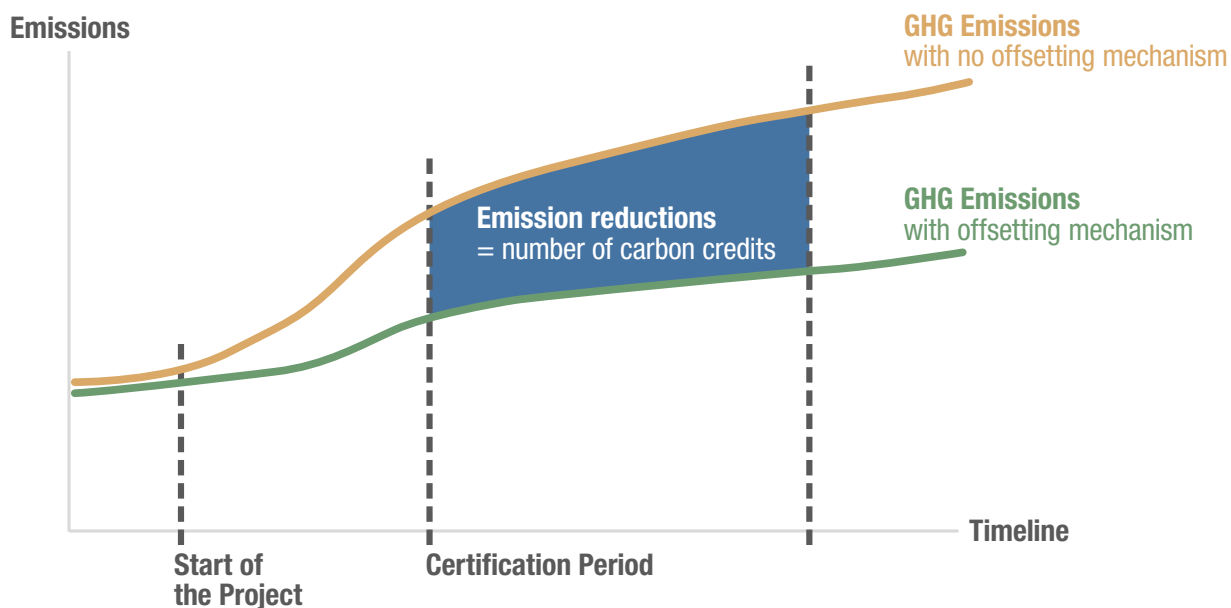
“The emission reductions and sequestrations allowed by a project correspond to the difference between emissions and absorption over the project’s lifetime and those that would have resulted had the project not been put in place, based on a baseline scenario. Once they have been formally approved, carbon projects can place a value on emission reductions and absorption by issuing carbon credits, which reflect the carbon savings made by the project and can be sold on carbon markets.”

Which major steps in carbon offsetting must a strategy comply?

To implement a carbon-offsetting mechanism, an investment strategy should proceed as follows:

- ❶ **Calculate its carbon footprint.** This phase consists in evaluating the level of CO₂ emissions of the strategy that is to be offset. A portfolio's carbon footprint is reflected in the level of CO₂ emissions generated by companies in which the strategy invests in proportion to its holding. This means, for example, that a strategy holding 1% of a company is seen as “emitting” 1% of that company's emissions.
- ❷ **Selecting carbon offset schemes.** Here, we have an embarrassment of riches: renewable energies, energy efficiency, reforestation, and waste management. It is therefore important to carefully select only projects that meet the objectives in terms of value and level of intermediation.
- ❸ **Operational implementation.** Once a project has been selected, the operating method comprises:
 - The payment made to an operator—an intermediary specialized in carbon offsetting who grants access to many projects
 - Registration of the carbon certificates on behalf of the investment manager in a national register
 - The “cancellation” of carbon credits, which involves having the registrar withdraw carbon credits from the market in order to prevent their subsequent disposal/resale

Reference Scenario¹



1. Source: www.info-compensation-carbone.com/les-projets-sud/

N.B., each company's Scope 1 and 2 emissions are considered, in other words, its direct emissions (Scope 1) and the indirect emissions generated by the electricity, heat or steam imported for the company's Scope 2 activities. The methodology used for the calculation is the methodology per amount invested.

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Is this new market regulated?

The market is not regulated, but there are labels that are governed by very strict rules based on four clearly defined criteria that guarantee project quality:



Measurability. GHG savings occasioned by the project need to be measurable.



Verifiability. Annually, an independent auditor validates the project's CO₂ emissions and ensuing savings. The auditor, accredited by organizations such as the Board of Directors of the United Nations' Framework on Climate Change, drafts a periodic verification report certifying that the project effectively reduces or sequesters CO₂ annually.



Sustainability. The project should have a minimum lifespan of seven years.



Additionality. The project needs to prevent GHG emissions in relation to a reference situation. The project lead also needs to show that the project could not have been implemented without funding derived from the sale of carbon credits. For example, almost 80% of India's electricity production comes from coal-fired power plants, which, to produce one megawatt hour (MWh), emit an average 820 kilos of CO₂. This is the baseline scenario. An electricity-production project in that same country based on photovoltaic panels emitting an average 48 kilos of CO₂ for a similar production level thereby enables a reduction of around 772 kilos of CO₂ equivalent. The reference changes from one country to another and is dependent on its energy-production mix (i.e. hydraulic, nuclear, etc.).

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The labels

There's no shortage of certification standards. Among the best-known are the Voluntary Carbon Standard, the Gold Standard, and the Reducing Emissions from Deforestation and Forest Degradation (REDD) Standard. They all vouch for the effectiveness of the project's carbon reduction efforts and for its compliance with the four aforementioned criteria. Carbon credits can only be issued by these organizations post-approval of the verification and audit reports.

Which variables have a bearing on the price of a project?

As with all markets, carbon-credit prices vary, and quite understandably so, depending on different factors:

Project technology/classification (forestry, renewables, energy efficiency, water access, etc.). Reforestation projects are usually more expensive.

Co-benefits of the project. Projects (apart from carbon reduction) that bring other benefits (socioeconomic and environmental) to the local populations usually cost more.

Certification standards. Registration costs, project follow-up costs, audit costs, etc., vary depending on the standard chosen and on any additional norms, such as: The Social Carbon or Climate, Community, and Biodiversity (CCBA) Standards, which certify the co-benefits of the project.

Project size. Projects are either micro, small, classic, or large-scale. Usually, micro-project carbon credits are more expensive, as they generate a lower credit volume (the cost price per ton exceeds the fixed certification costs).

The geographical location of the project. Some countries are more popular than others with clients, as mentioned above, cutting the CO₂ emissions generated by electricity production is easier in India than in France. In certain highly popular countries, the law of supply and demand strongly impacts the price, as well as other factors related to geographic location. Some countries, for example, lack the infrastructure or resources to set up projects.

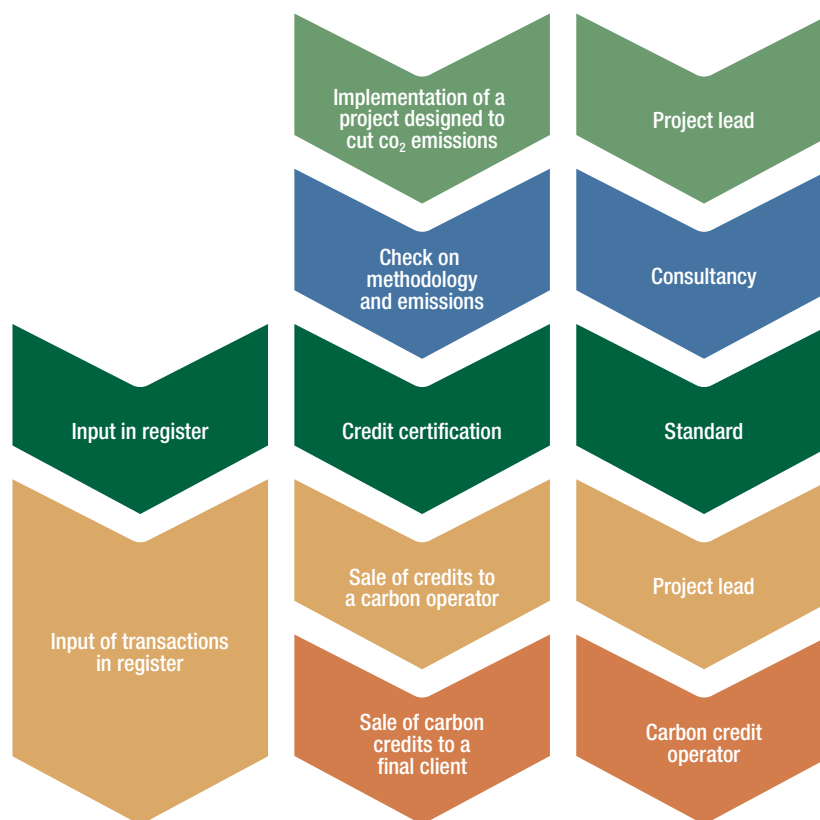
Purchased volume. Understandably, the higher the volume purchased, the more competitive the price. The project lead can more easily sell heavy volumes of credits than he can a pile of small transactions. This makes the prices on offers more attractive.

Committed duration. To ensure the sustainability of their projects, project leads often look for the buyer's commitment to acquiring the same quantity of credits for the same project over time (at least three or five years). The longer the commitment, the more seductive the price.

The vintage. This is the date as of which CO₂ emissions started to drop. Even if some participants say that older projects should be less costly, the difference is becoming negligible. The fact that a CO₂ emission remains for several years in the atmosphere is, on the contrary, supportive of older projects.

Stakeholders in carbon offsetting

- The project **developer** implements the project.
- The project **lead** assumes the financial risk.
- The **operator** has an important role in that s/he is the one who purchases the carbon credits from project leads before selling them to the final clients.
- The **carbon auditor** validates the quantity of project-related emission reductions achieved.
- The **standard** certifies that the project's carbon credits meet specific criteria and that each project is issued its own quality labels.
- The **register** is an accounts-based system that can be used for the tracking and transparency of transactions. The register records all purchases, sales, and cancellations of carbon assets, and can therefore check that carbon credits are sold only once, thereby guaranteeing their uniqueness.
- The **final client** buys carbon credits to offset their own emissions or, in the case of a fund, holdings.



In which countries are these projects being enacted?

Funded projects are usually implemented in developing countries. This is due to the predominance of historical Kyoto Protocol Clean Development Mechanism (CDM) offset projects. As projects in these countries have a considerable impact in terms of cheaper CO₂ emission reductions, the projects help them adopt energy-efficiency measures and their own means of electricity production.

Although most projects have admittedly taken place in developing countries, carbon certificates can be associated with projects implemented in industrialized countries, of which France is one of the most advanced. In April 2019, the Minister for Ecological Transition launched the low-carbon label, which certifies voluntary projects designed to reduce GHG emissions and additional carbon stockpiling in locally promoted sectors (agriculture, forestry, etc.).



“Emission reduction projects help developing countries adopt energy-efficiency measures and their own means of electricity production.”

Reconciling carbon neutrality with climate change

Investing in companies that offer solutions to the fight against global warming, such as sectors linked to the development of renewable energies, electricity storage, and energy efficiency, does not mean automatically investing in non-CO₂ emitters. Even the manufacture of solar or insulation panels (which, during their lifespan, prevent a huge volume of CO₂ emissions) is itself a source of CO₂ emissions—especially via the electricity on which manufacture depends. Therefore, offsetting a carbon footprint through the financing of certified green projects is one method for helping remain carbon-neutral, while investing in energy-transition-supportive schemes.

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