

CARBON CREDITS 101

What is a carbon credit?

A carbon credit represents the reduction, removal or avoidance of greenhouse gas emissions, measured in tonnes of CO₂ equivalent (tCO₂e) from an intentional project activity. By cutting emissions beyond what is required by law, carbon credits play an important role from an environmental perspective. It's important to both ensure 'permanence', where the emissions reductions cannot be reversed, and to avoid 'leakage', where the offset project results in an increase in emissions elsewhere. Strict, transparent accounting around carbon credits also ensure that the reduction is not double counted towards any other climate goal.

Carbon credits are often incorporated into carbon tax or cap-and-trade systems to offer a lower cost flexibility mechanism to companies that are regulated. They provide a vital cost containment tool for each system - and each jurisdiction can implement the filters on offset eligibility which it deems necessary, according to predefined criteria.

How do they work?

Carbon credits allow key actors – including foresters, farmers, and other project developers – to earn revenue for the GHG emission reductions they achieve, while at the same time stimulating innovation in areas that are not subject to an emissions cap.

Governments can encourage emission reductions from specific activities, such as forestry, agriculture and waste management, which are outside the cap of an emissions trading system (ETS). Emissions reductions from these activities can be quantified as carbon credits that can be sold and used to comply with a cap-and-trade system or to voluntarily offset an organisation's emissions.

Especially in today's complex climate policy world, sub-national and national climate policy coordination, harmonisation and innovation are more important than ever. The use of robust, eligible carbon credits for these actors to fully or partially link their bottom-up programmes (ie, via offset system linkages and trading) will become an increasingly critical step towards putting a real and lasting dent in the climate challenge.

Why use carbon credits?

Carbon credits are an effective way to reduce emissions in an efficient cost-effective manner; they can deliver the greatest emissions reductions in the shortest time at the lowest cost. Allowing the use of carbon credits in a compliance system will lower the cost of emission reductions throughout the market and provide a financial incentive to reduce GHG emissions. In the voluntary carbon market, carbon credits can be purchased by a company that wants to take responsibility for its carbon footprint and offset its emissions. As part of the mitigation hierarchy, the use of carbon credits to compensate for emissions should come after a company has reduced and avoided internal emissions as much as possible. Maximum environmental benefit is gained by eliminating the greatest quantity of emissions as quickly as possible. The use of carbon credits provides an efficient means of reducing GHG emissions in the near-term, while the revenue generated from the sale of carbon credits can be used to develop and implement transformative technologies that will achieve longer-term reductions.

Essential offsetting criteria

Offsetting must demonstrate actual emission reductions compared to what would have otherwise happened, ensure emissions are not simply released at a later date, and guarantee the emissions aren't displaced elsewhere. Some of the consistent essential criteria used in existing GHG offset programmes include:

Real: carbon credits must represent real emission reductions that have already occurred (ie, the reduction is not projected to occur in the future)
Additional: carbon credits must represent emission reductions that go above and beyond what would have occurred in the absence of the project, (ie, that go beyond business-as-usual).

Permanent: carbon credits must represent emission reductions that are non-reversible, or must typically be sequestered for a set number of years in the case of NCS or other removals projects.

Verifiable: sufficient data quantity and quality must be available to ensure emission reductions can be verified by an independent auditor against an established protocol or methodology.

Quantifiable: emission reductions must be conservatively estimated and quantified based on data and measurement.

Enforceable: carbon credit ownership is undisputed and enforcement mechanisms exist to ensure that all programme rules are followed, and the market's environmental integrity is maintained.

