

The Opportunities and Risks of Carbon Credits on the Pathway to Net Zero



On the pathway to net-zero carbon emissions, companies, investors, and governments are showing increased interest in generating and purchasing carbon credits that could be used to offset emissions. Right now, however, the carbon market is fragmented and under-regulated, leading to concerns that available credits lack integrity. That may change following a landmark agreement at the Glasgow Climate Change Conference in 2021, where countries agreed on a new international regulatory framework governing the generation and sale of carbon credits. This note explains the decision and sets out the opportunities and risks presented for stakeholders looking to engage in this fast-moving market.

Companies around the globe are increasingly committing to achieving net-zero carbon emissions, sometimes through a regulatory nudge and sometimes voluntarily. Carbon credits will be a key element of the net-zero toolbox, allowing companies to offset emissions they cannot yet cut. The carbon credit market is expected to grow significantly in the coming years.

There are opportunities and risks associated with carbon credits. If carbon credit projects are properly run, credits will lower overall global emissions. When carbon credits are generated in developing countries, they may also contribute to other sustainable development goals.

Carbon credits can generate these positive outcomes only when the integrity of the credits is ensured. The regulation of carbon markets is limited and fragmented, so there are justifiable concerns that some credits may amount to little more than greenwashing.

To address these concerns, the international community took significant steps at the Glasgow Climate Change Conference in 2021 to bolster the integrity of credits, with new rules on both procedures and benchmarks for credits (e.g., on government approvals; methods for measuring emission reductions; and monitoring, reporting, and verification). The rules aim to ensure that carbon credit projects genuinely lead to a measurable reduction in global emissions, and they add transparency to the process. Given the nature and scale of the challenge, the rules are complex and difficult to navigate in practice.

The new rules do not automatically apply to all aspects of carbon markets. National regulators and private credit-certifying bodies are now deciding how to carry the new rules over into their own work, with a window of opportunity for stakeholders to have an impact on the outcome. Early signs suggest the new rules will reshape public and private standards this year, improving integrity and, over time, reducing fragmentation. When successfully implemented, the rules will enable carbon credits to deliver on their potential to reduce global emissions, encourage companies to invest in these instruments as part of their net-zero pathway, and provide important investment opportunities for investors to finance credit-generating projects.

Article 6 of the Paris Agreement sets out the basic mandate for carbon markets, allowing countries to meet their international climate obligations (nationally determined contribution, or NDC) by purchasing carbon credits. The big development in Glasgow was a long-awaited agreement on the so-called “Paris Rulebook,” which seeks to implement this mandate. Below, we introduce carbon markets, the Paris Rulebook, and their interplay.

Carbon markets in a nutshell. Carbon credits are issued as a part of a project in a “host” country to reduce or remove emissions. Each credit confers a right to emit a certain amount of carbon, usually one ton per credit. The credits are purchased by a company or a country in compliance or voluntary markets:

- In compliance markets, entities purchase credits that can be used to meet obligations to reduce emissions under (i) international schemes (e.g., by countries to meet their NDC under the Paris Agreement or by airline operators to offset emissions under the Carbon Offsetting and Reduction Scheme for International

Aviation (CORSIA)) or (ii) national schemes (e.g., by companies to reduce their liability under a domestic emissions trading scheme (ETS) or a carbon tax). Each regulator determines to what extent carbon credits can be used to meet regulatory requirements and the eligibility criteria for credits.

- In the voluntary carbon market (VCM), companies purchase carbon credits to support voluntary claims (e.g., voluntary net-zero pledges, which are called “offset claims,” or to show support for emission reduction projects, which are called “impact claims”). At present, there is no unified international regulation or guidance on the quality of carbon credits that can be used in the VCM.

The Paris Rulebook in a nutshell. The Paris Rulebook develops two approaches for the international transfer of carbon credits. **First**, the Cooperative Approach (Art 6.2) applies when countries trade carbon credits between them or, according to some, when the host country allows another country/company to use credits, even if the host country has no agreement with another country. As an example of the Cooperative Approach, Switzerland and Peru signed an agreement for Switzerland to finance credit-generating projects in Peru in return for carbon credits that Switzerland will use to meet its 2030 NDC target. **Second**, the Sustainable Development Mechanism (SDM) (Art 6.4) establishes an international scheme for the approval of credit-generating projects, usually run by private investors.

For each approach, the Paris Rulebook sets out substantive and procedural requirements to ensure the integrity of the credits — credits that contribute meaningfully to reducing overall global emissions.

- What are the core requirements under the Paris Rulebook?
 - (1) **No double counting:** A carbon credit can be counted only once. The host country may formally agree not to use the credit to meet its own NDC and, instead, allow the credit to be used for other carbon mitigation purposes (e.g., by another country to meet its NDC or by a company in another country). In that case, the credit is not counted by both the host country and by the company/other country.
 - (2) **Additionality:** A credit-generating project must result in emission reductions or removals that would not have occurred in the absence of the projected income stream from the sale of the credits generated by the project. This requirement ensures that a project has a real — and additional — impact on lowering emissions in the host country, irrespective of who actually uses the credit. The SDM Approach (Art 6.4) has more requirements on how to calculate the quantity of emissions reductions.
- What are the key differences between the two approaches in the Paris Rulebook?
 - (1) **International approval:** Under the Cooperative Approach (Art 6.2), the credit-generating project is run with the approval of the host country but without the approval of an international supervisory body. Although there is no international body, parties must meet detailed transparency and reporting requirements with review by independent technical experts who can make (nonbinding) public recommendations. In contrast, under the SDM Approach (Art 6.4), there are extra layers of supervision: A project needs to be approved by the host country and a newly created international supervisory body, which acts on the basis of recommendations made by an independent verification body.
 - (2) **Mandatory levies:** Under the SDM Approach (Art 6.4), mandatory levies totaling 7% are charged on carbon credits. The levies are used to support climate adaptation in developing countries (5% contribute to the United Nations Framework Convention on Climate Change [Adaptation Fund](#)) and to guarantee additionality (2% are canceled). Mandatory levies are not imposed under the Cooperative Approach (Art 6.2), although they are “strongly encouraged.”

The new rules give the host country a critical role in credit-generating projects. They can determine (i) which standards apply (the Cooperative Approach, SDM Approach, or an approach outside the Paris Rulebook) and (ii) whether a carbon credit is used to meet its own NDC or not. How these decisions are made will dictate the value and possible uses for the resulting carbon credit.

The impact of the Paris Rulebook on carbon markets. Even though the Paris Rulebook provides only limited direct regulation of carbon markets, it is expected to have a significant effect on market regulation, boosting the integrity of credits in both compliance and voluntary markets. Indeed, while various aspects of the Paris Rulebook are still to be fleshed out, moves are being made to increase the quality of carbon credits in line with it. Notably, leading private credit-certifying bodies, such as Gold Standard and Verra, are in the process of strengthening their standards in light of the Paris Rulebook.

In the VCM, there are no unified international regulations of the quality of credits. That may change. Private initiatives are developing guidelines to enhance the integrity of credits (e.g., the [Voluntary Carbon Markets Integrity Initiative](#)), with the first guidelines expected in April. The Paris Rulebook requirements on double-counting, additionality, and transparency will likely shape these guidelines. Over time, some national regulators may also regulate credits used for voluntary purposes, for example, defining quality requirements for credits that a company uses to meet net-zero pledges.

In compliance markets, national regulators sometimes allow a company to use credits to meet some or all of its obligations under a carbon tax or ETS. Regulators may now make the eligibility criteria more demanding in line with the Paris Rulebook. Other countries with a carbon tax or ETS may be more inclined to permit the use of high-quality credits that meet the Paris Rulebook requirements. Although the CORSIA scheme for offsetting emissions from international aviation already has relatively demanding rules for the quality of carbon credits, countries may enhance those standards further.

The Paris Rulebook is also expected to have an effect on pricing. Credits that comply with the Rulebook will have higher integrity and are likely to be eligible for use in more markets. They can, therefore, be expected to earn a price premium.

Opportunities and risks for stakeholders. It is clear that this moment of fast-changing regulatory and market dynamics presents significant opportunities and risks for all stakeholders. Of particular note:

- **Companies** have the opportunity to purchase high-quality carbon credits to meet their net-zero commitments (either voluntary or possibly mandatory). Increased scrutiny on the integrity of carbon credits by both consumers and regulators underpins the need to carefully choose the right carbon credit “product.”
- **Investors and project developers** have the opportunity to invest in, and develop, high-quality projects, albeit with some questions as to how the regulatory and market dynamics will play out (including, e.g., pricing dynamics and the liquidity/stability of the market as it grows).
- **Regulators** now must further develop and implement the Paris Rulebook and decide whether and how to adapt the eligibility criteria under their own domestic ETS or carbon tax schemes. Internationally, regulators must consider how the rules affect schemes like CORSIA and whether to subject other industries (e.g., maritime shipping) to similar schemes.
- **Host countries** may seize on the opportunity to receive additional financing for carbon-reducing projects, carefully considering which carbon credit approach to apply to cut emissions and to foster sustainable development.

Sidley stands ready to assist stakeholders in navigating this complex landscape. This includes, for example, advising clients on the opportunities and risks associated with financing their own emissions-reducing projects through the generation and sale of carbon credits; purchasing carbon credits to offset their emissions and achieve net-zero targets; future-proofing carbon credit investments in light of the fast-changing regulatory developments; and working with governments to seize the benefits and reduce the risks of engaging on the carbon market.