Carbon Credit Agreements: The path to net-zero?

Hessam Kalantar, Fatima Marjan and Phoebe Wilson of Kalantar Business Law Group explore carbon credit agreements and credit verification in light of increased international focus on carbon offsets as a means of addressing climate change.

New global challenges that prompt widespread collective action nearly always produce new markets, and the ongoing climate crisis and rising global emissions are no exception. Carbon markets have turned emissions into a commodity through the sale and purchase of "carbon credits". Carbon credit production and sale have today become an important part of the mix of remedial measures to promote sustainability within the rubric of corporate social responsibility and Environmental, Social and Governance (ESG) considerations alongside the rapid development of ESG standards by regulators.

WHAT EXACTLY ARE CARBON CREDITS?

Carbon credits represent a unit of exchange that can be purchased and used by corporations, organisations and even individuals to offset their greenhouse gas (GHG) emissions. Generally speaking, one carbon credit is equivalent to one metric ton of GHGs removed from the atmosphere. But this does not mean that credit purchasers have actually reduced their own emissions. Instead, the purchaser's emissions are simply compensated by the positive impact of their purchased carbon credits. In other words, their financial contribution towards the carbon offtake activity used to generate the carbon credits allows a cancelling out, or reduction, of their environmentally adverse activities.

Carbon credits are independently verified units that can supposedly be traced back to the project that generated the emission reduction. A project that aims to reduce GHG emissions can take many forms so there is no one, singular way to create a carbon credit. Reduction can — and ideally should — result from simply releasing a smaller quantity of pollutants into the atmosphere. But this requires age-old dependencies to be unwound and entire business models to be reconfigured. In the meantime, reduction can be achieved through purchasing one's contributions to carbon capture and sequestration.[1] Common examples include reforestation and conservation of threatened forests and mangroves, renewable energy initiatives such as the replacement of fossil fuels with solar panels or wind turbines, and the creation of permanent carbon stores (where noxious by-products of industrialisation, such as methane, are isolated from the atmosphere, or converted into less polluting products like natural gas).

Carbon credits take time to be produced. A reforestation project, for example, requires several significant steps to occur before the trees even begin to grow or the threat of deforestation can be said to have been meaningfully averted. Carbon credit project managers must: identify land with forestry suitable for reforestation or conservation; negotiate with government bodies to secure concessions to such land, feasibility studies and data modelling; arrange for the availability of labour and resources in order to successfully cultivate the trees; organise further studies to assess and quantify the projected carbon reduction; and, ultimately, seek certification of the credits once project milestones are met — all of which requires substantial funding.

CARBON OFFTAKE AGREEMENTS

A Carbon offtake or offset agreement (COA) — or an emission reductions

payment agreement, or a carbon removal purchase agreement — is a sale and purchase agreement often accompanied by financing terms akin to a project financing facility.[2] Comparisons with a power purchase agreement (PPP) are common in that, much like a PPP, a COA provides for the "purchase [of] a set amount of carbon credits at set price points several years into the future".[3] The purchaser's payments, per the COA, will typically be paid at certain times and upon the achievement of certain agreed outcomes, and these milestones can span the lifetime of the agreement.[4] The presale of carbon credits under a COA thus allows an initial investment that enables carbon credit producers to undertake the offsetting project in the first place.

Carbon projects are capital intensive and, as with any other project financing, the COA terms depend upon factors such as the stage, size and duration of the project, the creditworthiness of the project sponsor and, perhaps most importantly, the "bankable offtake" that has been forecast, namely, the credits. The COA will generally govern the tasks to be undertaken to create the carbon credits, the number of credits the project is expected to yield annually, the price bands at which they will be sold to the purchaser and the exclusivity that the purchaser will be afforded with respect to such credits as and when they become available. This will typically include rights to on-sell those credits to third parties at market rates; the COA not only enables creation of carbon credits for use by the immediate purchaser, but also enables the project to produce further credits to be sold to future buyers at spot prices (where there is exclusivity any on-selling will be through the purchaser).[5]

Carbon credits become issuable to, and tradable by, purchasers once officially certified by one of several institutions that are recognised as able to verify that each credit produced corresponds to the right to emit one ton of carbon dioxide or an equivalent of another greenhouse gas. The carbon credit market, however, does not yet have anything akin to a regulator, so the market has been left to develop and select its own verification processes and standards. Companies such as Verra and the American Carbon Registry (ACR)

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are US non-profits that have developed standards to verify projects in order to certify the credits that they produce.[6] Those standards must, amongst other things, contain rules that "address key tenets of quality broadly recognised in the carbon market including additionality, baselines, accounting for leakage and mitigating the risk of reversals".[7] These are notoriously difficult items to predict and measure. "Leakage", as the term suggests, is the net change of greenhouse gas emissions or removals that are attributable to the project but occur outside the boundary of that project. These include, for example, indirect emission changes upstream or downstream of the project. "Reversals", (or "non-permanence",) refer to situations where emissions reductions or removals generated by a project are later reversed by, for example, a natural disaster or project mismanagement. In other words, the project's mitigation results in only a temporary environmental benefit. The "additionality rule" dictates that GHG reductions are additional only if they would not have occurred in the absence of a market for offset credits — that is, if the reductions would have happened anyway. This means that, without any prospect for project owners to sell carbon offset credits, they are not additional. Additionality is essential for the quality of carbon offset credits: were GHG reductions not additional, then purchasing offset credits in lieu of reducing one's own emissions will hasten climate change instead of slowing it. These concepts represent just some of the currently commonly accepted, market-developed carbon credit verification rules. But application and quantification of these rules in practice is no easy feat; without the guidance of a formal regulator, application of these concepts lack consistency.

Other initiatives, like the Integrity Council for Voluntary Carbon Markets and the Voluntary Carbon Market Integrity Initiative, are attempts to ensure that carbon credits in the market represent real emission reductions and claims made by companies using offsets are accurate. These rules remain in development but are evolving through a process of expert review and public consultation that draws on factors including scientific evidence and technological advances. As ACR recently

explained in an impassioned rebuttal to John Oliver's comedic portrayal of the carbon credit industry in a recent episode of his Last Week Tonight show on HBO, "[l]ike anything else, as the market grows, our methodologies and standards continue to evolve and strengthen based on real world experience".[8] Updates to ACR's methodology from July of this year, for example, included changes to additionality safeguards, increased reporting requirements and further specificity in project accounting, modelling, and verification.

Despite healthy scepticism about the efficacy of carbon credits as a means to tackle climate change, these verification methodologies, though not quite in their infancy, require constant refinement, and technology is bound to only accelerate their reliability. Conservation as a policy is, after all, not a forgone conclusion and requires significant funding. Land on which vegetation thrives in abundance is susceptible to being harvested, and when financial needs arise even conservation organisations harvest portions of their land or sell it altogether. Credit verifiers such as ACR and Verra make the compelling case that, despite its imperfections, "the carbon market serves as a vehicle to quantify and monetize carbon as a climate benefit and to fund conservation efforts to tip the scales towards other conservation benefits when other funding sources are not available."[9]

CONCLUSION

The heightened interest in generating and trading carbon credits is a direct and creative response to climate change challenges, but one that must withstand regulatory and scientific scrutiny, and be prepared to rebut allegations of greenwashing. The Paris Agreement recognises international cooperation, including through markets, as part of the effort to protect, restore and manage forests, all as part of the goal to limit global warming to 1.5°C by cutting current GHG emission levels in half by 2030, and reducing them to net zero by 2050. These are ambitious goals and COAs are just one part of the mix of solutions needed, and as much as offsets may not be equivalent to reducing one's own carbon footprint, a vibrant market for such credits should be encouraged to flourish. These efforts should sit alongside financial incentives and legal requirements to reduce CO2 in the "here and now". There is much creativity at work here, and it appears that we may be on our way to making investing in planet Earth not only an existential imperative, but also a lucrative proposition if the right carbon credit agreement can be struck.

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Text by:
1. HESSAM KALANTAR, *managing partner, Kalantar Business Law Group*
2. FATIMA MARJAN, *associate, Kalantar Business Law Group*
3. PHOEBE WILSON, *associate, Kalantar Business Law Group*