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Voluntary Carbon Markets and Offsetting; A report of the Committee on Climate Change

To APSE main contacts across England, Wales, Scotland and Northern Ireland

1. Introduction

The issue of voluntary carbon markets has been regarded by some as controversial; a means by which a business or an organisation can offset their emissions rather than genuinely looking to reduce their emissions. Whilst some have considered carbon offsetting as simply another way in which to 'greenwash' their credentials others have regarded well-run carbon offsetting as an effective and efficient way in which to reach global carbon neutrality, providing that it is paired alongside the right reduction strategy.

Given these differences in opinion and some degree of confusion on this matter the UK Committee on Climate Change (CCC) has produced a new report 'Voluntary Carbon Markets and Offsetting' published in October 2022.

This briefing explores the findings of that report and provides APSE member councils with links to the report.

2. Outline of the report

The CCC report looks at the evidence presented by voluntary carbon markets (VCMs), including the risks and opportunities. It focuses on the ways in which 'offsetting' could be used, as part of a much wider approach, to progress the UK to Net Zero. The report makes clear the distinctions between voluntary carbon markets which are markets where carbon credits are purchased, by organisations, for voluntary use, as opposed to compliance measures with legally binding emissions reductions. Voluntary carbon markets are noted as growing, driven in part, by demand from businesses and organisations who are looking to offset their emissions, often rapidly and to support their overall carbon objectives.

3. What are carbon credits, VCMs and 'offsetting' and how does it all work?

The report provides the following useful outlines: -

> *A carbon credit is a token representing the avoidance or removal of greenhouse gas emissions, measured in tCO2e. Carbon credits involve a financial transfer from one entity seeking to gain credit for a reduction in emissions to another offering to deliver this emissions reduction. Buyers use them to enhance their climate credentials and sellers use them to pay for actions that reduce emissions. Where buyers continue to take actions that they otherwise would have and where sellers*

would not take these actions in the absence of the credit market, credits can result in a net reduction in global emissions.

Particularly for compliance-based carbon markets (where a regulator sets the terms of transfer), carbon credits can also support efficient allocation of abatement.

Article 6 of the Paris Agreement contains two operative parts which relate to carbon credits.

- *Article 6.2 establishes a reporting and accounting framework that enables countries to voluntarily trade international "mitigation outcomes". This allows buyers to claim the emissions reductions when accounting for their Nationally Determined Contribution (NDC), while the seller relinquishes the right to them. In this way, double counting between the two targets is avoided.*
- *Article 6.4 establishes a new centralised crediting mechanism established under the UNFCCC which will generate carbon credits. These credits can be used for voluntary purposes (i.e. - can be used as 'offsets'), as well as potentially to meet compliance obligations (e.g., for regulated entities within an emissions trading scheme).*
- *The mechanism established under Article 6.4 must deliver an "overall mitigation in global emissions", achieved by automatically cancelling 2% of credits generated. A further 5% of credits will be monetised by the UNFCCC, with the proceeds directed towards the UNFCCC's Adaptation Fund.*

Voluntary carbon markets (VCMs) are therefore clearly 'markets'; places where carbon credits are purchased, usually by organisations, for voluntary use and not to comply with legally binding emissions reduction obligations such as an emissions trading scheme or carbon tax. Credits can be bought from public international crediting mechanisms (including the new centralised crediting mechanism mentioned above in relation the Paris Agreement) and in private international crediting mechanisms, and domestic crediting mechanisms.

Within these markets various forms of carbon credits exist. Some may cover a reduction or removal of emissions that would otherwise have been produced. For example, displacement of fossil fuel generated electricity with electricity from renewable sources; avoiding deforestation or preventing peatland degradation; and carbon capture and storage at industrial facilities are all examples of carbon credits that reduce/avoid emissions that would otherwise have been produced. There are also examples provided within the report whereby carbon dioxide is removed from the atmosphere and these include biological removals, such as afforestation, soil carbon enhancement, peatland restoration; and engineered removals, such as direct air carbon capture and storage (DACCS).

Interestingly the report cites that forestry credits make up 42% of the global total in the last 5 years with the most global demand for carbon credits coming from:-

- Financial services
- Oil, gas and petrochemical companies and
- Consumer goods organisations

Demand is often driven by governmental or organisational net zero targets or whereby companies which to offer their consumers the opportunity to 'offset' their purchases. APSE for example has itself has adopted a trail approach to this in using seminar delegate travel details to offset the carbon footprint of its events through forestry means.

4.Has demand for carbon offsetting increased?

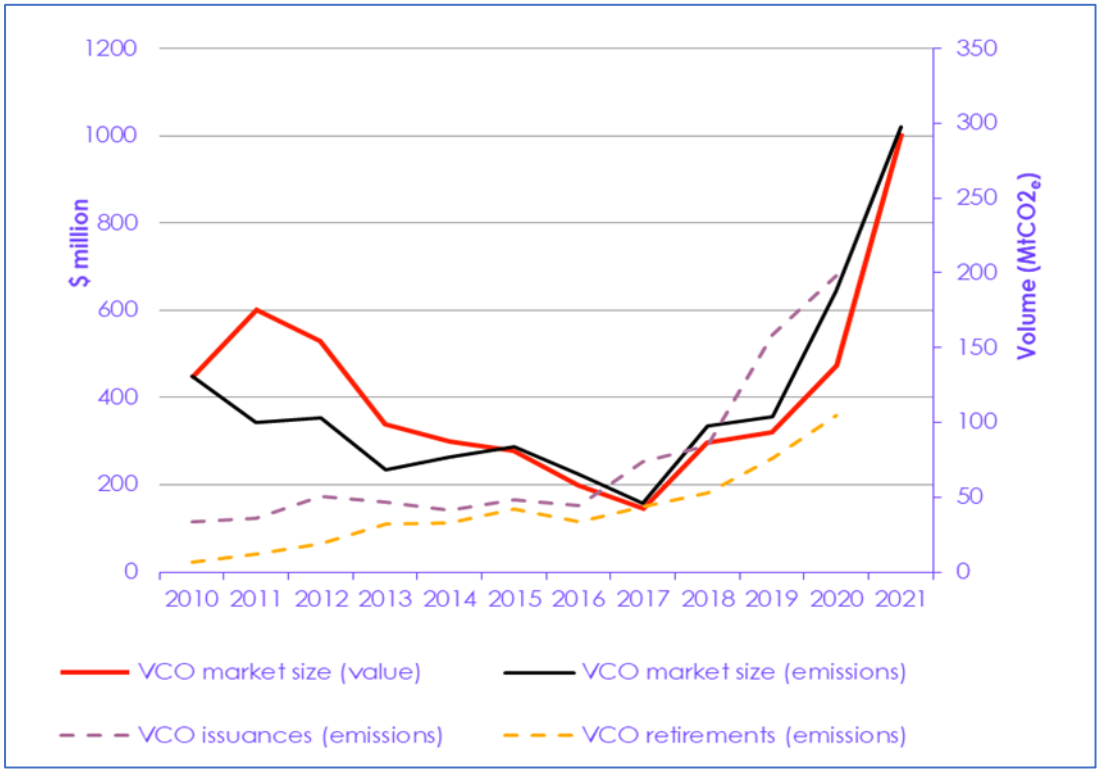
The report cites that the relative size of the market against overall emission reductions is actually relatively small. However, it is growing. It is this growth which has led the CCC to consider if the VCMs and offsetting should be better regulated and understood.

Market growth has been rapidly increasing since 2017. In 2021, estimated VCM value increased over 5-fold compared to the market volume in 2018. Some estimations suggest demand for global carbon credits could grow by up to a factor of 100 by 2050, though this would of course depend largely on how businesses and organisations respond to overall direct emission reductions.

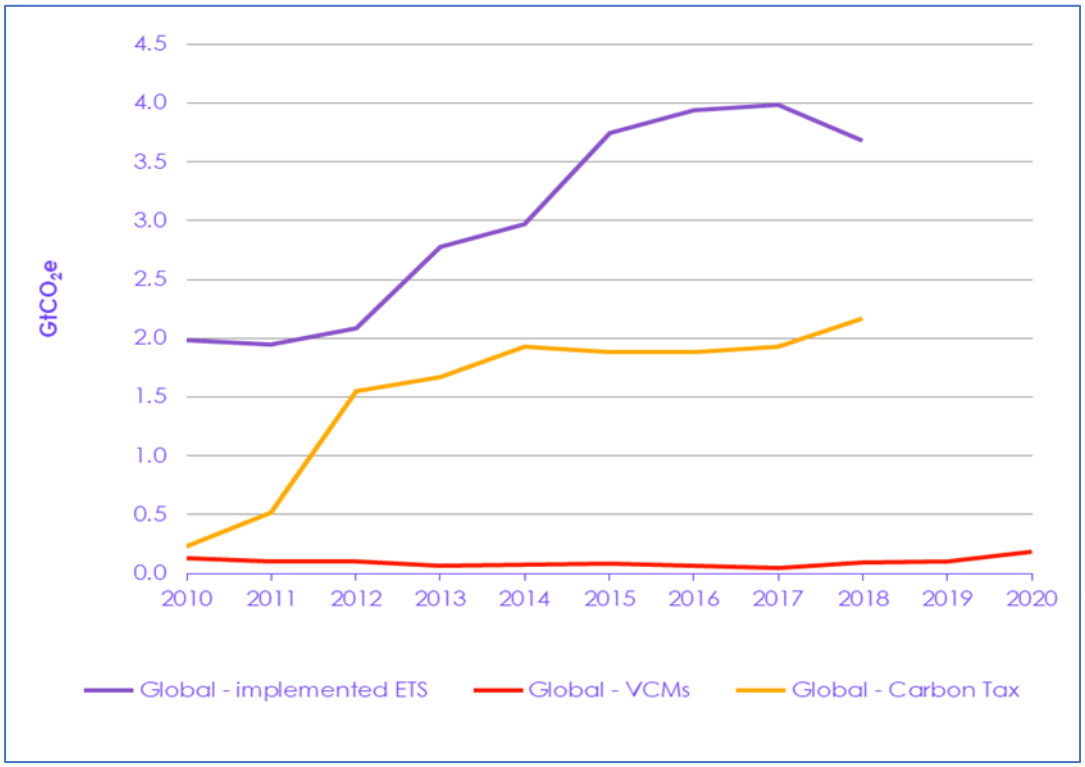
A factor influencing this growth is the pricing within VCMs. Global carbon credit prices are cited in the report as being at around $3/tonne but can vary between $1 - $15/tonne based on type, size, location and accreditation standard.

Within the UK, land-based carbon prices are based on Pending Issuance Unit (PIU) prices, rather than verifiable carbon units. PIUs under the Woodland Carbon Code range between £10 – 20, and £10 – 12 under the Peatland Code. The report points out that these prices do not necessarily assimilate to the Committee's Sixth Carbon Budget analysis in areas such as peat restoration and afforestation.

Growth in Carbon Markets: *The size of the voluntary carbon market has grown substantially in the last decade*



Compliance compared to Voluntary Carbon Markets: *Compliance regimes are substantially larger than voluntary carbon markets*



5. What are the issues with carbon offsetting and VCMs?

The CCC report is very balanced in its view that there is a place for carbon offsetting and VCMs more broadly. However, a number of issues are explored. First of all, the complexities of calculating emissions reduction or removals are considered to be technically challenging; this is more so the case for projects which may involve offsets for peatland or forestry or other land-based schemes.

A further issue is the permanence of a project. A business or organisation may commit to an offsetting arrangement in good faith but if the project is badly managed then the carbon reduction or removal may not be long-term, or they may not be designed to be long-term in the first place. Coupled with the difficulties in calculation this could lead to overinflated claims of the impact achieved in the strive for net zero.

The issue of permanence may be addressed by newer technologies, such as geological storage of carbon which may offer greater permanence, however the report suggests that the standards for measurement, reporting and verification (MRV) are not yet sufficiently developed.

Taken in combination, with a risk that VCMs may be seen as a cheaper and quicker option for companies and organisations to offset their emissions, the dilemma faced is that far from being a small part, in enhancing the approach to net zero, an overly relaxed approach to carbon offsetting could undermine efforts to reduce carbon emissions at source; given the issues of calculations and measurements, alongside relatively cheap pricing, it could in fact slow down or inhibit efforts to achieve net zero.

6. The report findings and recommendations

The report finds that high-integrity carbon credits purchased by businesses can play a small but nonetheless important role in supporting the transition to Net Zero. However, the report contains a number of recommendations to Government. Essentially the report suggests that before growing voluntary carbon markets, stronger guidance must put in place, alongside regulation and standards. This will, it is envisaged, help to ensure that the purchase of carbon credits is not used as a substitute for direct business emissions reductions. This, the report argues will improve the integrity and transparency of carbon credits. The CCC report goes on to suggest that in the absence of these measures, there is a real risk that voluntary carbon markets could slow progress towards net zero or indeed damage other important climate priorities including climate adaptation and biodiversity.

The report makes the following three broad recommendations:

- Encourage businesses to support high integrity nature-based and biological solutions and engineered removals, while focussing on achieving direct business emissions reduction.

- Continue efforts to protect and raise the integrity of carbon credit projects, in the UK and globally, and to ensure voluntary carbon markets are resulting in lower overall global emissions and positive wider impacts.
- Support the modest but useful role voluntary carbon markets can play in the UK net zero pathway, in tandem with other measures.

The report contains more detailed recommendations to Government as to the regulation, measurement and verification of VCMs and carbon offsetting to preserve the integrity of the markets.

The full report can be accessed through this link. The team that prepared the CCA report and its analysis are: Bea Natzler, Daisy Jameson and Ruth Gregg, led by Chris Stark, Mike Thompson and Vivian Scott, with contributions from Brendan Freeman, Sasha Abraham, Tom Dooks, Adam Gardiner, Richard Millar, Ruth Lyons, James Lees and Alasdair Robertson.

APSE's climate change and renewables group will be discussing this report at the next network meeting which will take place in December with details to be confirmed. You can register to attend meetings of the network using this link.

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