Woodland carbon 'delivered' – not just 'promised'

Dr Vicky West of the Forestry Commission explains how the market has moved on

he UK's Woodland Carbon Code, managed by the Forestry Commission, has now been running for seven years and the number of players in the woodland carbon market, as well as the trees themselves, are growing.

There are now over 190 projects validated (checked at the outset) to the Woodland Carbon Code, brought forward by 24 different project developers – including Forest Carbon, the Woodland Trust, forest agents, other charities, local councils, a sawmiller and individual landowners. Together, these projects have created over 20,000ha of woodland which are predicted to sequester 6.3m tonnes of carbon dioxide equivalent (tCO_2e) from the atmosphere over their lifetime, of up to 100 years.

Averaged over the next century this $63,000 \text{tCO}_2\text{e}$ per year is a long way off compensating for the UK's (current) annual emissions of 468 m tCO₂e per year, however it is equivalent to the annual emissions of 13,500 cars or the energy use of almost 7,000 homes each year over the next century! New woodlands are never going to compensate for the UK's current level of emissions, but they can be an important tool in a portfolio of measures – especially as we move towards the latter part of this century when the UK government has committed to reach 'net zero' emissions.

What are the 'verified' carbon units that are now available?

One aspect of the Woodland Carbon Code is that projects are required to 'check-in' after five, then



per year from 24 WCC projects can offset annual emissions of

13500 cars or 7000 homes



Together, these projects have created over 20,000ha of woodland which are predicted to sequester 6.3m tonnes of carbon dioxide equivalent (tCO₂e) from the atmosphere over their lifetime, of up to 100 years every ten years, to monitor and verify (independently check) the carbon sequestered to date. Project developers have started undertaking year 5 verifications, with 56 completed so far. These projects have converted units which were a 'promise to deliver', into actual sequestered, verified (3rd-party checked) carbon units. So far the number is small, around 5 thousand units – trees taking time to grow, and having to account for any initial soil carbon losses before the balance is positive.

This means that there are now two 'products' on sale:

Pending Issuance Units (PIUs) – effectively a promise to deliver future carbon sequestration, by purchasing early in a project before the trees have grown; these can be used in Corporate Social Responsibility claims about the future benefit of an investment.

Woodland Carbon Units (WCUs) – or tonnes of carbon dioxide proven to be already sequestered from the atmosphere into growing trees. These can be used by companies to compensate for their unavoidable greenhouse gas emissions.

The pioneers

The Craigengillan Estate in Ayrshire verified their first group of projects totalling 91ha this year, proving that they had already sequestered almost 600 tCO_2e in the first five years, and are on track to sequester another 26,500 tCO_2e over the next 95 years. The estate is the first to sell Woodland Carbon Units, or sequestered carbon. This year, they have sold almost 450 verified Woodland Carbon Units to Rider Levett Bucknall via Carbon Clear, a carbon retailer. Craigengillan have also sold almost 2,000 PIUs to Barclays Bank via First Climate. They are hoping to complete further sales of both upfront PIUs and verified, sequestered WCUs in the coming weeks.

Viv Todhunter, Head of Corporate Responsibility at Rider Levett Bucknall, said "We are committed to minimising adverse environmental impacts and maximising the opportunities for environmental enhancements, in both our own internal practices and in the advice we give to our clients. We constantly review our operations and services to promote carbon efficiency. As part of this approach we were delighted to purchase the first verified credits available on the Craigengillan Estate."

Mark Gibson, owner at Craigengillan, says both buyers

Craigengillan Estate owner Mark Gibson.

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appreciate the wider conservation and community work occurring on the historic and beautiful estate and feels buyers are happier to buy PIUs after the first verification in preference to before, as they have further assurance that the project is well established and looking good to deliver carbon sequestration in future Mark Chadwick, CEO at EcoAct UK, confirms that many of their UK-based clients are now looking at how they can support carbon reduction projects closer to home with the Woodland Carbon Code providing unique access to forestry projects and carbon credits in Britain.

Mark Gibson says: "This Woodland Carbon Code project has been a joy. It is allowing us to create superb native woodlands which will not only sequester carbon but also bring huge benefits to people and wildlife. It fits perfectly with the principles of the UNESCO Biosphere in which we are situated. The recently planted second group woods, have been formally dedicated to the Woodlands Trust's World War 1 Centenary Project. The Forestry Commission guided us through the whole process and EcoAct UK and South Pole were great to deal with when we came to selling our first Carbon Units to their clients".

The market situation

Of the 6.3m tCO₂ validated to the WCC to be delivered over the next 100 years, around 60% has been sold upfront to a number of different companies making Corporate Social Responsibility claims, with the remainder to be sold as PIUs in the near future or WCUs later on once they are verified.

As far as we are aware, the price paid by corporate buyers has been from £5 to £15 per unit/tCO₂e, but it's too early to say whether WCUs will be more or less 'valuable' than PIUs. The price paid depends on the wider benefits of the project, be that other ecosystem services that are also delivered, the location of the project relative to the purchaser's office or customer-base, or potentially the ability for the purchasers staff to engage directly with the project

Policy driving the agenda

Over the last year there have been changes - actual and proposed - in government policy which signal a stronger demand for woodland carbon in the future:

• Greenhouse gas reporting is likely to become mandatory for around 12,000, rather than 1000 of the UK's largest companies over the next year or so. Companies are likely to have the option to compensate for unavoidable emissions with verified WCUs as per current guidance.

• The domestic carbon offset market will be strengthened, according to the UK Clean Growth Strategy and Defra's 25-year plan.

• Government will offer a 'Woodland Carbon Guarantee' for verified WCUs, with £50m over the next 30 years committed in Westminster's recent autumn budget for a pilot project in England.

via volunteering for planting or conservation work. The leaders in negotiating these sales have been Forest Carbon and the Woodland Trust, but other deals have been sealed via carbon brokers such as Natural Capital Partners and Climate Friendly as well as Carbon Clear and First Climate mentioned above. A few landowners/agents have made a small number of direct sales to local companies.

The woodland carbon projects and the process that supports them are maturing, and there's more government policy supporting the use of such market mechanisms; for forest agents or landowners not already involved, now's the time to be considering a woodland carbon project, helping the UK meet it's emissions reduction targets for 2050 and beyond as the trees grow.

www.forestry.gov.uk/carboncode Vicky.west@forestry.gov.uk

REFERENCES

1 www.epa.gov/energy/ greenhouse-gas-equivalenciescalculator