

Forestry Commission Woodland Carbon CO₂e

Woodland Carbon Code

Requirements for voluntary carbon sequestration schemes

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Forestry Commission

Forestry Commission Woodland Carbon CO₂e **Outline**

- Background
- The Code
- Applying
- Potential amount and timing of income
- Future developments

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Forestry Commission Woodland Carbon CO₂e **Objectives**

- Encourage a **consistent** approach to woodland carbon projects
- Offer **clarity** and transparency to customers
- Provide **rigorous** carbon measurement protocols
- Reassure the **market and investors** about voluntary woodland carbon projects
- Construct a **framework** that may support a mandatory market for woodland carbon credits in the future

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Forestry Commission Woodland Carbon CO₂e **Development**

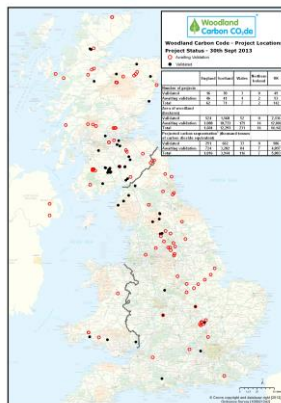
- FC lead with Carbon Advisory Group (NGOs, carbon companies, experts)
- Science input from Forest Research & others
- 2010/2011: Pilot (projects & certification bodies)
- July 2011: Launch the Code
- 2012/2013: Pilot Group Scheme
- April 2013: Launch Group Scheme
- July 2013: Launch WCC on Markit Registry
- Still developing

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To date:

- >140 projects registered
Will create 14,000 ha woodland
Will sequester > 5 MtCO₂ over lifetime (100 years)
- 49 projects validated
Will create 2,100 ha woodland
Will sequester 1MtCO₂ over lifetime (100 years)
- Verified credits will be available from 2016



Forestry Commission Woodland Carbon CO₂e **How it fits in**

- All UK woodland creation contributes to the UK's emissions reduction target (Kyoto Protocol)
- GHG emissions reporting is **mandatory** if company listed on stock exchange
- DEFRA GHG reporting guidelines now allow companies to report carbon sequestration in the UK
- Code doesn't create carbon 'offsets' tradable in EU ETS or used in Carbon Reduction Commitment.

Environmental Reporting Guidelines:
Including mandatory greenhouse gas emissions reporting guidance
June 2013

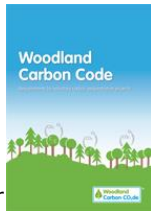
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Includes:

- Woodland creation
- Carbon sequestration and emissions within a woodland

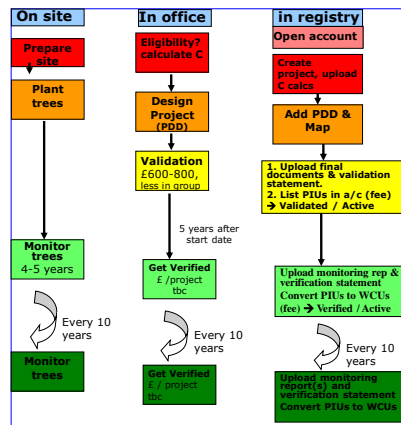
Doesn't include:

- Changes to management of existing woodlands
- Carbon stored in forest products
- Substitution effects (wood products or fuel)
- Avoided emissions from previous landuse



- UK Forestry Standard +
- Additionality
 - Legal : Financial : Barrier
- Permanence
 - Forestry Act, Buffer (15-40% of project carbon)
- Predict and monitor carbon sequestration
 - Baseline : Leakage : Project benefit
- Certification
 - Validation
 - Verification + 5 and then every 10 years

- Employ an agent/carbon company?
- Design your project
 - PDD: Carbon calculation : Finances : Risk : Other evidence
- Register your project (..within 2 yrs planting)
 - Current: FC registry
 - Future: Markit Environmental Registry
- Get certified (= 'Validated' .. Within 3 yrs registering)
- Stay certified (= 'Verified' .. + 5 and every 10 years)
 - SGS or SFQC
 - Single project or group



- 12ha native woodland planted on ex-grazing land on farm with arable/cattle/sheep.
- Project Developer & C broker: Forest Carbon
- Green Insurance Company bought most of CO₂
- Will sequester 5,700 tCO₂ over 100 years
 - 4,800 tCO₂ to sell, 900 tCO₂ to buffer

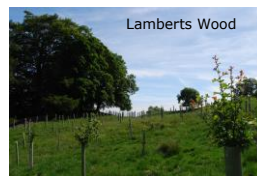


New planting at Reathwaite - June 2011



Reathwaite stakeholders assess the new woodland

- YDMT Group: 5 projects, 2-13 hectares
- Project Developer: YDMT
- Will sequester 15,000 tCO₂ over 100 years
 - 13,000 tCO₂ for sale
 - 2,000 tCO₂ to buffer
- Comply Direct marketing/selling carbon units



Lamberts Wood



Storthwaite

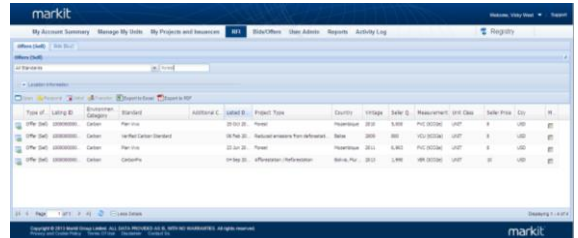
- White Rose Forest Group: 10 projects, 2ha – 40 ha
- LA + private-owned sites Leeds/Wakefield/Bradford
- Project Developer - White Rose Forest
- Will sequester 28,000 tCO₂ over 40 years
 - 23,000 tCO₂ for sale
 - 5,000 tCO₂ buffer



21 Acre Field

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- Markit's RFI platform = 'For Sale' & 'Wanted' board for carbon units
- Available for use by WCC projects by Oct/Nov 2013



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- **Carbon income in advance** = a one off payment at outset.
 - + Helps landowner with establishment cost
 - + Traditional forestry products as future income.
 - Carbon Buyer has to wait to 'use' credits
- **Invest for the future** = sell carbon as its sequestered at each verification.
 - + Regular future income from carbon as well as forestry products
 - ? Carbon price could be higher in future
 - Carbon Buyer can 'use' credits immediately

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Current UK prices: £ 3-15 / tCO₂

Global Average 'forestry' price: £ 6 / tCO₂

Scenario	Saleable/Claimable Carbon Sequestration by year 50	Saleable/Claimable Carbon Sequestration by year 100
Sitka Spruce, 2.0m spacing, Yield Class 16, mounding on organo-mineral soil. Thinned to standard regimes, but no clearfell. 15% risk of non-permanence buffer.	340 tCO ₂ /ha.	470 tCO ₂ /ha.
Sitka Spruce, 2.0m spacing, Yield Class 16, mounding on organo-mineral soil. No thinning. Clearfell at 40 years. 15% risk of non-permanence buffer.	135 tCO ₂ /ha. This would be achieved by year 40, but no further carbon can be claimed.	135 tCO ₂ /ha. This would be achieved by year 40, but no further carbon can be claimed.
Mixed native woodland, 2.5m spacing, Yield Class 4-8, mounding on organo-mineral soil. No thin or clearfell. 20% risk of non-permanence buffer.	375 tCO ₂ /ha.	470 tCO ₂ /ha.

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- Via Markit Environmental Registry
 - Request for Introduction Platform: Sell Units
 - markit.com
- Via 'broker'
 - See list : forestry.gov.uk/carboncompanies
- UK Carbon Reporting Framework
 - Advertise your project ukcarbonreporting.org
- Find a local business

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- Registry
 - Project register : plus carbon unit register + tracking
 - Request for Introductions : opportunity for sales
- Monitoring & Verification
 - Methods review : Pilot
- Scope
 - Zero Carbon Homes : Woodlands as 'allowable solution'?
 - Changes to management of existing woodlands?
- Social and environmental benefits
 - Ways to quantify : Helps sales
 - Pilot on existing WCC projects
- International reporting arrangements
 - Review + Options?

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