



Forestry Commission

Woodfuel in the South East of England

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Forestry Commission
South East Region



- New role within the Forestry Commission
- Funded by FC and SEEDA
- Secondment for 2 years
- Replication in other regions
- Also **national** Head of Woodfuel
- Remit to help the development of markets for wood
 - Local timber markets (25%)
 - Woodfuel (75%) - help to implement the England Woodfuel Strategy

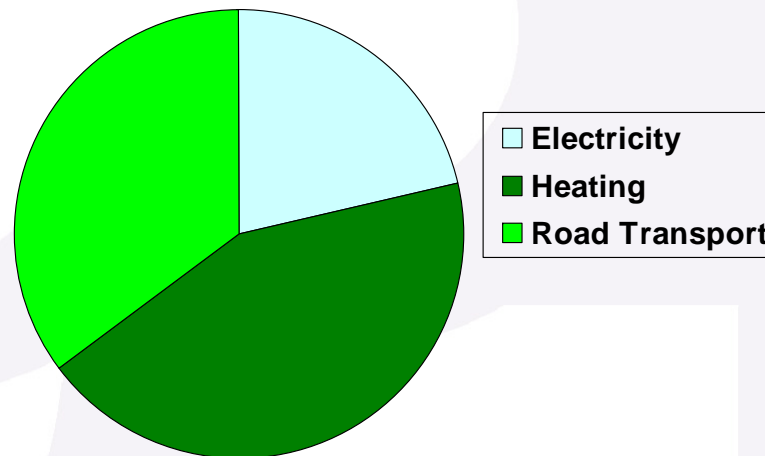




- 2 million green tonnes/year from un- or under-managed woodlands by 2020
- Capital investment and longer-term support (heat obligation - perhaps?)
- Awareness, outreach and skills



- South East Energy Consumption
(total = 1.6×10^{11} kWh/yr)





Central Government (Forestry Commission)

National Strategy Support Role

- Policy lead
- Funding and target lead
- Setting standards
- Training



RDAs and regional Forestry Commission

Regional Level strategy/support role

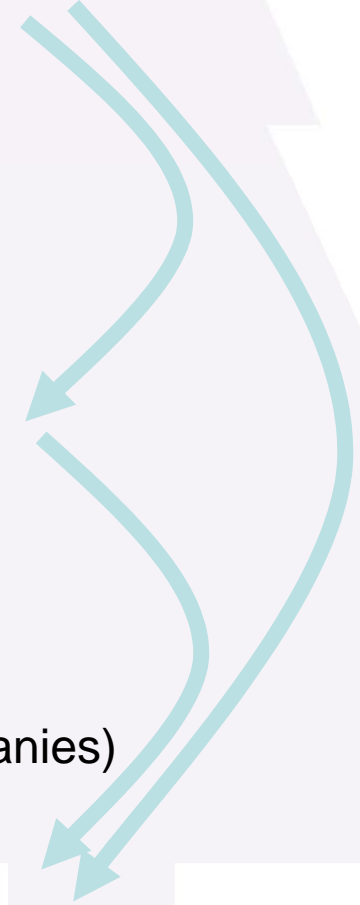
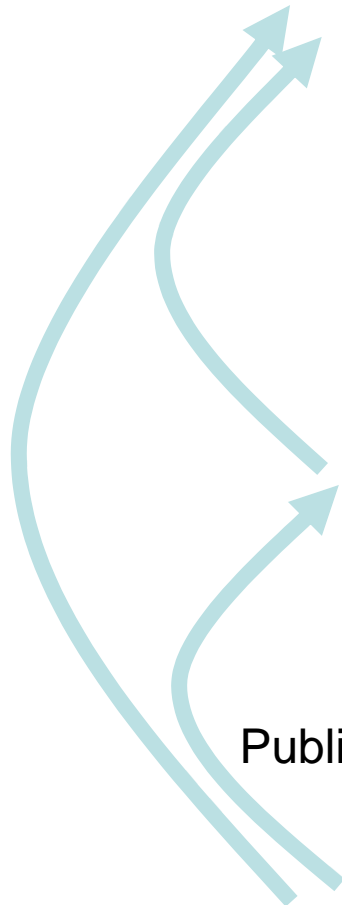
- Regional lead on targets training projects standards
- Regional lead on promotion and publicity
- Monitoring and review of projects



Public and private input (e.g. projects, energy supply companies)

Sub-regional project role

- Identify owners and provide ongoing technical support
- Facilitate matching of feedstocks and end users
- Local awareness raising & community engagement
- Capital/infrastructure funding (via national or regional schemes)





- Conservatively, 550,000 oven dry tonnes (odt) of woodfuel is potentially available in the SE in the absence of competing markets.
 - 420,000 odt from woodland the rest is tree surgery and sawmill arisings
- We could produce **1.75%** of the total energy consumed in the SE from this resource if we convert it into heat.
(electricity - 0.6%, CHP - 1.85%)
- And save around **700,000 t CO₂** per year compared to using oil (= **29,000 cars** off the road)



Boiler Prices

Boiler size	Example size	Rough price range (excluding grants)
50 kW	Primary school	£26k – £40k
200 kW	Greenhouses	£65k – £123k
500 kW	Council offices	£110k – £260k
1000 kW	College	£180k – £450k

Fuel Prices (2008)

Fuel	Price	Price (p/kWh)
Gas	2.4 p/kWh	2.4
Electricity	5.5 p/kWh	5.5
Oil	53.5 p/l	5.2
Woodfuel	£70/t (or £21/m ³)	2.1

Indicative years to payback
(in the absence of grants)

Boiler size	Gas	Electricity	Oil
50 kW	176	7.8	6.3
200 kW	133	6.0	4.7
500 kW	111	5.0	3.9
1000 kW	96	4.3	3.4



- Bioenergy Capital Grants Scheme

<http://www.defra.gov.uk/farm/crops/industrial/energy/capital-grants.htm>

Eligibility: Almost anyone, most capital items.

Match with: Non-public funds (except LA schools which can match with LA money)

- Rural Development Programme for England (RDPE)

http://www.seeda.co.uk/Work_in_the_Region/Rural_Issues/Rural_Development_Programme_for_England/

Eligibility: Farmers, Foresters, most capital items where use is “on-farm”

Match with: Non-public funds

- Low Carbon Building Programme

www.lowcarbonbuildings.org.uk

Eligibility: Phase 1 - householders and private businesses, Phase 2 - not-for-profit organisations

Match with: Non-public funds



- Big Lottery Fund - Community Sustainable Energy Programme
<http://www.communitysustainable.org.uk/>
Eligibility: Community-based organisations (inc. schools and colleges),
for wood pellet stoves and wood boilers and feasibility studies.
Match with: any source
- Utilities Funds - mostly for community or educational purposes
 - EDF - Green Energy Fund
 - Powergen - Green Plan Fund
 - Scottish Power - Green Energy Trust
 - E.On - Source Fund



- Salix Finance

<http://www.salixfinance.co.uk/home.html>

Eligibility: Public sector, LA, NHS government, any RE capital

Match with: Any

Operational cost savings used as the repayments.

- Carbon Trust Renewable Energy Loans

http://www.carbontrust.co.uk/energy/takingaction/loans_renewables.htm

Eligibility: Private sector SMEs, £5-10,000 for any RE capital

Match with: Any



- Bioenergy Infrastructure Scheme
<http://www.defra.gov.uk/farm/crops/industrial/energy/infrastructure.htm>
Eligibility: Almost anyone, most capital items, producer groups
Match with: Non-public funds
- RDPE [web site as before](#)
Eligibility: Farmers, Foresters, most capital items
Match with: Non-public funds
- South East Woodland and Timber Fund
<http://www.forestry.gov.uk/forestry/infd-77wchv>
Eligibility: anyone working in Forest-based industries
Match with: Non-public funds



www.biomassenergycentre.org.uk
click on grants

The screenshot shows a Microsoft Internet Explorer browser window displaying the Biomass Energy Centre website. The address bar shows the URL: http://www.biomassenergycentre.org.uk/portal/page?_pageid=77,151338_dad=portal&_schema=PORTAL. The website header includes the Biomass Energy Centre logo and contact information: Tel: 01420 526197, Email: Biomass.Centre@forestry.gsi.gov.uk. The main content area is titled "Grants and support" and contains the following text: "The use of biomass as an energy source can have numerous benefits personally, locally, nationally and globally. Many countries, including the UK, offer a range of grants and incentives to encourage its use and development." Below this, it states: "For convenience grants and support are divided into those that help support the purchase, installation or development of equipment, those that support the fuels supply chain, and those that provide consultancy and advice." The page lists several grant schemes: "Bio-energy Capital Grants Scheme" (announced 9th April 2008), "Biomass Heat Acceleration Project" (up to £5m for up to 5 years announced in 2006), "The Carbon Trust Applied Research Programme" (current call for proposals open until 11th June 2007), "Climate Change Levy", "Community Energy Programme" (programme to close 31st March 2007 with deadline for final grant claims 28th February 2007), "DTI Technology Programme", and "Carbon Trust Energy Efficiency Loans Scheme" (interest free loans for businesses to allow investment in energy saving equipment). The left sidebar contains navigation menus for HOME, ABOUT BIOMASS, PRACTICAL, TECHNICAL, and RESOURCES. The right sidebar features two images: one showing 3D currency symbols and another showing a person working with a tractor in a field.



£/m³ (roundwood)

Multiply by ~ 0.44

£/m³ (chip)

Multiply by ~3.33
(for 30% MC)

£/fresh tonne (moisture content)

Multiply by 1.429
(for 30% MC)

£/oven dry tonne

Multiply by ~0.018

p/kWh





- The use of woodfuel in SEE is set to increase rapidly
- But only if we follow through with targets and other promises
- Increasing number of examples (most, but not all are good)
- Market forces are driving wood heating and grants are helping
- Production and supply needs to be local, high quality and sustainable to reap the benefits for our woodlands and their owners

