



The South West Bioheat Programme

KEY FACTS

National Strategic context

The UK Renewable Energy Strategy sets out the government's plans for ensuring the UK meets its EU legally binding 2020 target to generate 15 per cent of its energy from renewable sources. To achieve this it suggests increasing heat from renewable sources from 0.6 per cent to 12 per cent, of which wood energy will need to play a major part.

The ambition of the Forestry Commission's Woodfuel Strategy is to bring an additional 2 million tonnes per annum into woodfuel markets by 2020, which will mean an additional 400,000 tonnes per annum from woodlands in South West England. It recommends intervention in the following areas:

Capital investment and support: to accelerate installation uptake and build a functioning and secure market.

Outreach and facilitation: to link and provide confidence in the supply chain.

Awareness raising: to bring more woodlands into productive and sustainable management by engaging with and advising woodland owners, entrepreneurs and communities.

South West England's Woodlands

The South West Region has 212,000 ha of woodland (over 2ha), representing 8.9 per cent of the land area and 19 per cent of England's 1.1 million hectares of woodland.

Around three quarters are predominantly or exclusively broadleaved in character. Today we harvest only around a quarter of the annual timber growth from our native woodland and only 60 per cent from our conifer forests each year.

A similar proportion of the woodlands are in private ownership and it is estimated that over half are not actively managed.

Our woodland diversity is the legacy of traditional woodland management, not just for timber production but also coppicing, charcoal making, grazing and management for game. Bringing these woodlands into management, stimulated by the emerging woodfuel market, means that a wide range of benefits can be achieved, including the improved quality of our woodlands.

“At Regen SW our role is to support business and accelerate the uptake of renewable energy in the south west. Building on the initial success of the grant programme, through a process of continuous improvement we remain supportive and promote those areas that need it, to accelerate the uptake of biomass wood fuel from sustainable sources, at reduced cost per MW of installed capacity and tonne of CO₂ saved.”

Merlin Hyman, chief executive, Regen SW

wood energy in the southwest

The wood energy installed capacity in the South West at the start of the South West Bioheat Programme in 2007 was 10 MW.

This had risen to 30 MW by 2009, using around 40-50,000 tonnes of green wood. The aim is to increase this by another 30-40 MW through the activities of the programme.

The principal barriers to the uptake of wood energy to be addressed by the programme include:

Higher capital cost compared to fossil fuel alternatives, with low priority often given to operating cost.

Lack of confidence of end users' decision-makers on technology and fuel supply issues.

No revenue support for CO₂ value of renewable heat. This issue should be addressed by the forthcoming Renewable Heat Incentive.

Need for objective independent advice.

Lack of industry capacity to follow up enquiries.

the south west bioheat programme

The South West Bioheat Programme was launched in 2007 with funding from the South West of England Regional Development Agency (SWRDA) and the Forestry Commission.

It is run by RegenSW, a leading not-for-profit centre of sustainable energy expertise and pioneering project delivery.

Overall, the programme is driven by the need to support businesses in bringing private, under-managed woodland into sustainable economic management by creating demand from installed systems.

The programme activities included:

Demand Creation – Identifying and providing intensive support to 30 projects.

Biomass Fuel Supply – Providing support to the growing woodfuel supply sector to establish sustainable fuel supply chains in the long term.

Training and Skills Development – To develop and deliver training and skills exchange across a range of key specialist occupational skills.

As a direct result of the South West Bioheat Programme, SWRDA was awarded £3 million from DEFRA in April 2008 to invest in the sites identified through the demand creation programme.

Programme Approach

The programme has taken a 'multiproject style' phased approach, running concurrent demand creation and woodfuel supply, grant award, administration and support elements seamlessly. The key success factors have been:

A partnering approach between Regen SW, SWRDA and the Forestry Commission, focussing on outcomes, key customer values, task-based risk management, benefits realisation management and value engineering.

Exploitation of opportunities in a dynamic and expanding sector.

Site stakeholder management and commitment to delivery at executive level.

Consultancy support for initial feasibility studies.

Consistency of grant process – bringing the site to successful grant application when ready to proceed to installation.

Focussed support to ensure successful installation post grant award.

A 'Systems' approach to biomass wood fuel installation.

achievements

Overall, the grant-aided South West Bioenergy Capital Grants programme (SW BeCGS), which completed on 31 March 2011, has delivered an additional 18 MW of installed capacity, across 17 separate installations.

Installations range from the Dairycrest Davidstow Dairy, which installed two UK manufactured Byworth Pellet Boilers at 7 MWth capacity each, consuming 13,500 tonnes of pellets per annum, a range of new-build and retrofitted schools, a horticultural nursery and conference/leisure centre.

A further four sites (Treliske Hospital, Castle Drogo [National Trust] and two schools) received feasibility and tendering support for their independently funded installations, which has added a further 2 MW to the programme.

Overall, SW BeCGS has led to a reduction of 500 tonnes per annum of CO₂, and is utilising nearly 30,000 tonnes of wood fuel per annum. A total of £1.9 million of grants were awarded, which in turn led to private-sector investment of £5.35 million.

Through applying continuous incremental development, the programme has supported the national round 5 of the Bioenergy Capital Grants scheme, through pioneering 'masterclasses' for aspiring applicants, which supported a further 11 sites and 2.7

MW of installed capacity.

This was adopted nationally by DECC for Round 6 of the scheme in 2010. The SW BeCGS was able to grant-aid 12 sites in the SW in round 6 following the closure of the national scheme.

In summary, the programme has actively delivered an additional 22.7 MW of installed capacity in the SW region, across 33 separate installations.

External evaluation of the programme on behalf of SWRDA in 2010 attributed the South West Bioheat Programme as directly supporting 41 per cent of the SW region's biomass installations.

Over 80 businesses have received direct support, 250 people have attended various public information events, and nearly 150 people have received direct training in either conducting site feasibility assessments or in Woodfuel supply training.

The south west biomass (woodfuel) total now stands at some 56 MW of installed capacity, with over 482 installations in the region, ranging from small-scale domestic to large-scale industrial users.

SOUTH WEST WOODSHED

The programme website, the South West Woodshed, acts as a regional portal for wood fuel information, training and advice (www.southwestwoodshed.co.uk), including full supplier search facilities and case studies on supported sites and installations delivered by south west companies.

the future: FOREST and beyond

FOREST stands for: FOsteRing Efficient long term Supply partnerships.

The project is funded by Intelligent Energy Europe (IEE), a European Commission programme.

FOREST's objective is to work directly with bio-businesses in this supply chain to develop and consolidate long-term supply-chain partnerships that will give the end user confidence in the total bioheat system and encourage investment from larger non-domestic heat users.

The project will be carried out by business support agencies from seven regions: Austria, Ireland, Italy, Poland, Spain, Sweden and the United Kingdom.

This will allow the exchange of experience from businesses in more developed markets to those in less developed markets.

It aims to work across the whole supply chain covering everything from the supply of the fuel to the installation and maintenance of the boiler systems.

The focus is on non-domestic applications, from 100 kW to 1 MW, as well as small to medium-scale CHP and district heating up to 10 MW.

The biomass fuels covered will be pellet and wood chip from all sources including forestry, arboricultural arisings, waste wood and energy crops.

The work to develop the supply chains will consist of three main types of activities:

The development of a best practice toolkit focused on supply-chain business models. It will also cover efficient and effective specification and design of bioheat systems including both plant and fuel supply.

Business to Business networking across a wide range of businesses to allow the exchange of knowledge between businesses in the supply chain and their clients. This will facilitate the development of new and more integrated supply-chain partnerships, and will include exchange trips to Austria and Sweden.

Building capacity in the supply chain directly through tailored advice to individual businesses. The aim is to develop new supply-chain partnerships, consolidate existing partnerships and to improve reliability and confidence across the whole supply chain.

These main tasks will be supported by a comprehensive communication strategy, including a project website (www.forestprogramme.com) providing on-line access to all the tools and services developed.

UK TRADE FAIR

As part of the programme, which is supported by the Forestry Commission with an active project member, there will be a UK Trade Fair on 8-9 September at Longleat, Wiltshire, in partnership with ConFor's South West Woodland Show. It will incorporate the National Wood-fuel Suppliers Group Meeting, a sub-group of ConFor and the Renewable Energy Association (REA) as part of the growing biomass business sector development (www.southwestwoodlandshow.org.uk).

further activities

In parallel with the FOREST programme, the activities are being supported by the delivery of Business Improvement Training.

This training includes Biomass Supply Chain (Lean) with Cornwall College Saltash, and Biomass Boiler Installer Training for HEATS/MCS certification by GASTEC at CRE. It extends an Intelligent Energy Europe Programme developed by the South East Forestry Commission (Woodheat Solutions), and engages with the SW Forestry Commission's Ward Forester Project, bringing undermanaged small woodlands back into productive management.

This training is complemented by the I-Net Programme of which Regen SW is part of. This is a 'one-stop-shop' for the renewable energy business sector in the South West, providing specialist knowledge, support, products and services to enable businesses to be more competitive and engage with new routes to market.

This programme runs through to the end of 2012, and will take the use of woodfuel in the south west through into the new era of the Renewable Heat Incentive, which, nationally, aims to promote a seven-fold increase in renewable heat capacity over the next decade.

In 2010, Regen SW supported the Environment Agency in assessing the south west regional resource capacity for renewable energy. On behalf of DECC, Regen SW also produced the South West Heat Map, an individual address-level estimate of heat demand to assist local authorities and other organisations with strategic planning and decision making tools (see www.regensw.co.uk/projects/support-for-decision-makers/resource-assessments).

As well as wood fuel from virgin timber, the waste wood sector is also a significant resource in the south west that can be exploited in producing wood pellets or in larger waste-compliant combined-heat-and-power plants.

The FOREST Programme will also continue to support, and interact with, regional and national initiatives. With the developing Ward Forestry initiative and new woodland/woodfuel grants from the Forestry Commission, it will continue to support and develop this important sector of the south west renewable energy economy.

about regen sw

Regen is a leading independent, not-for-profit, centre of expertise in sustainable energy. Our mission is to enable business, local authorities, communities and other organisations to deliver ground-breaking renewable energy and energy efficiency projects with thriving local supply chains.

Our recent achievements include:

- Playing a pivotal role in securing funding and planning consent for Cranbrook, the UK's first zero-carbon large scale housing development
- Supporting 35 MWs of wood-fuelled boiler installations across the region through our South West Bioheat programme.
- Developing the ground-breaking Wave Hub project
- Launching 'Communities for Renewables', an initiative that supports sustainable community energy generation and demonstrates localism in action.
- Undertaking a comprehensive resource assessment on behalf of DECC to identify the contribution our local resources could make to national renewable energy objectives.
- Developing a comprehensive guide to developing planning policy on sustainable energy for local authorities
- Establishing an effective partnership with the EST to support the growth of the micro-generation sector.
- Supporting the development of a thriving offshore renewable energy supply chain in the south west
- Supporting over 540 businesses, organising over 70 business-oriented seminars and conferences, and providing skills training for over 2,200 people.

Membership

Regen's members play a central role in achieving our vision to lead the way in demonstrating how we can achieve a sustainable-energy future as the foundation of a prosperous low-carbon economy. Membership is open to any organisation that supports our mission.

For more information and to join see www.regenSW.co.uk

Renewable Energy marketplace 2012

Due to the huge success of the 2011 Renewable Energy Marketplace – with over 1,200 delegates coming through the doors and exceptional feedback from businesses – Regen SW will once again be running the event in 2012 at the Westpoint arena in Exeter.

Taking place on 8 March 2012, it will bring together farmers and landowners, the tourism industry, the construction sector, local authorities and the general public, alongside experts and exhibitors. The event will cover all types of technologies, from biomass, heat pumps and hydro to solar PV, solar thermal and wind, including a series of short but detailed workshops.

Get involved

There are already excellent opportunities to either sponsor the event or secure an exhibition stand. To take advantage of the opportunity, contact Rachel Hayes, Regen SW's events and membership manager, on rhayes@regensw.co.uk 01392494399.

For more information go to:
www.regensw.co.uk, www.southwestwoodshed.co.uk, or
www.forestprogramme.com



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