

Wood Fuel Development Guidance

Issue: 03

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1. Introduction

The Landscape Partnership Ltd has completed research into wood fuel development and the planning process on behalf of the Forestry Commission. This report describes the findings of the research. Initially, the background to the project is presented, followed by the planning policy context for wood fuel. The outcome of the relevant planning appeal case history is described and then case studies of wood fuel development proposals are illustrated. Finally, the key issues for Development Management Officers to consider when determining wood fuel planning applications are summarised.

Project justification

The Forestry Commission aims to increase the amount of woody biomass delivered to market and this is set out within the 'Wood fuel strategy for England' (Forestry Commission, 2007). Wood fuel development has the potential to support Local Planning Authorities in working towards the government targets for renewable energy within 'Planning Policy Statement 22: Renewable energy' (CLG, 2004), and the objectives set out within the consultation document 'Planning Policy Statement: Planning for a Low Carbon Future in a Changing Climate' (CLG, 2010).

Local Planning Authorities are receiving an increasing number of planning applications for wood fuel development. The aim of this report is to provide guidance for Local Planning Authorities when processing these applications.









2. Background

The project commenced with a scoping exercise. The scoping study considered the key issues associated with planning for wood fuel. The initial research identified:

- Inconsistencies in decision making by Local Planning Authorities determining wood fuel development proposals;
- The negative impact of regulatory requirements on the financial viability of wood fuel schemes; and
- The need for further guidance on wood fuel proposals for Local Planning Authorities.

The scoping study has informed the approach to the project and the data collected has been carefully considered in compiling this planning guidance.

During the scoping stage the Royal Town Planning Institute (RTPI) agreed to endorse the guidance document and support its distribution to planning professionals. The Institute is currently promoting its 'Seven commitments on climate change' and has prepared a 'Climate Change Compendium'. The 'Climate Change Compendium' includes a section on renewable energy which should be read in conjunction with the wood fuel planning guidance.

Our approach has been multi faceted with information drawn from a range of sources and these are outlined below:

A questionnaire for planning professionals

A questionnaire to ascertain the main planning issues associated with wood fuel development proposals was distributed to the RTPI Environmental Planning and Protection Network Energy and Planning Interest Group and the results of the survey have been used to prepare this guidance.









2. Background

Planning policy

The national planning policy context for wood fuel development has been considered in detail.

Appeals

Past appeal decisions can set a precedent for future decisions. The implications of case law relating to the definition of permitted forestry activity, development ancillary to forestry and the issues associated with sensitive sites have been reviewed.

Case studies

Development Management Officers and Planning Consultants have identified examples of wood fuel proposals which have progressed through the planning process. Case studies have been examined, and the key findings of the most pertinent cases have been summarised.

Issues to consider

The planning policy context, past appeal decisions and the case studies have been used to develop a synopsis of some of the issues for Development Management Officers to consider when determining planning applications for wood fuel development.







3. Policy context

At the time of writing, the Conservative Government proposes to review the National Planning Policy Statements and prepare a National Planning Framework. Until further details are provided the following Planning Policy Statements apply.

Planning for a Low Carbon Future in a Changing Climate

Consultation March 9 2010

Consultation on the Planning Policy Statement which combines the 'Climate Change Supplement to Planning Policy Statement 1' and 'Planning Policy Statement 22' follows a succession of legislation and directives that set out how the UK will achieve dramatic reductions in emissions and meet targets on renewables. Wood fuel has the potential to make a significant contribution to the achievement of these targets.

The consultation document encourages Local Planning Authorities to support the move to a low carbon economy and secure low carbon living in a changing climate. Renewable and low carbon energy development should be encouraged. Local Authorities should ensure that Development Management does not prevent, delay or inhibit appropriate proposals for renewable and low carbon energy generation. Renewable energy development compromising the openness of the green belt would be inappropriate and visual impacts should be carefully considered.

The proposed Planning Policy Statement is yet to be adopted. The Conservative Government's objectives support low carbon and decentralised energy and therefore future planning policy is likely to remain positive.









3. Policy context

Planning Policy Statement 22: Renewable Energy, CLG 10 August 2004

The document states that Local Authorities should encourage small scale renewable energy developments through positively expressed policies in Local Development Documents. Biomass operators should minimise the effect of increases in traffic by ensuring that generation plants are located in as close proximity as possible to the sources of fuel that have been identified.

Planning for Renewable Energy: A Companion Guide to Planning Policy Statement 22, CLG

16 December 2004

This guide supports the Government's aspiration to supply 20% of electricity for England and Wales from renewables by 2020. It explains that more effective management, such as the management of woodland to promote biodiversity, is a key environmental benefit of biomass.

The guide provides recommendations and should be read in conjunction with expert opinion, local policy and the site context. The context is particularly important in determining the appropriate approach and scale for biomass proposals.

Coalition Government policy

The Government's priorities for England's trees, woods and forests, and its approach to achieving them flow from 'The Coalition: our programme for government' (Cabinet Office 2010). This commits to using a wide range of levers to cut carbon emissions, decarbonise the economy and support the creation of new green jobs and technologies to fulfil ambitions for a low carbon, eco-friendly society. The programme includes a commitment to '..create a presumption in favour of sustainable development in the planning system.' Ministers have subsequently endorsed putting in place the conditions for a step change in woodland creation and woodland management in England to fulfil carbon and other co-benefits.









3. Policy context

Wood Fuel Strategy for England, Forestry Commission

March 2007

The document includes a target to increase the amount of woody biomass delivered to market to two million tonnes annually by 2020. This target represents 50% of the estimated unharvested annual increment in English woodlands.

The UK Renewable Energy Strategy 2009 July 15 2009

The strategy outlines a commitment to expanding the UK biomass sector as a cost effective means of meeting the UK target of achieving a reduction in EU greenhouse gas emissions of 20% by 2020. The policies set out in the strategy aim to build on existing efforts to increase the production of sustainable biomass in the UK and support the expansion of the biomass supply chain. The strategy suggests that the supply of biomass could be increased through bringing more woodlands back into management.









4. Appeals

Past appeal decisions may set a precedent for future decisions. Therefore, it is important to consider the case history for wood fuel.

The General Permitted Development Order does not define forestry and there is no definition within the Town and Country Planning Act 1990. Forestry is referred to as 'the growing of a usable crop of timber' in the context of aftercare conditions relating to mineral workings. A number of appeal decisions have helped set a description of forestry which includes wood storage and some processing activity, peeling of bark, cutting down, topping and lopping and uprooting of trees and the clearance of undergrowth, splitting and cutting of timber and coppice wood. In some cases dictionary definitions have been used to help determine the nature of forestry. As forestry is permitted development, planning permission is not required for any of these activities.

Activities ancillary to forestry

Since forestry is permitted development, activities ancillary to forestry are also permitted.

Uses such as the processing and sale of timber are viewed as ancillary, but only if the timber is grown on site and it is only primary timber products that are sold. The manufacture of timber elements would therefore fall out with this permission. Scale is an important consideration, naturally ancillary activity must assume an appropriate proportion of the site.

Woodland sites should be of an adequate size to provide sufficient fuel for the wood operation proposed.









4. Appeals

Landscape and green belt designations

Landowners and managers are required to notify the Local Planning Authority when exercising permitted development rights for agriculture and forestry. A planning application can be required for a forestry proposal following prior notification. Should a proposal have a significant impact on a landscape or green belt designation then planning permission is more likely to be required. Officers should encourage applicants to consider designations when designing schemes.

Contentions have arisen regarding built elements of wood fuel proposals due to their visual impact. The appearance and location of supporting buildings can be considered as intrusive within the landscape context by altering the landscape character. These concerns can override the importance of the role of wood fuel in mitigating climate change in planning decisions.









Case Study 1: Cambridge housing scheme

Proposal: A planning application for community biomass heating associated with the redevelopment of sheltered accommodation to provide forty flats. The redevelopment proposals included the installation of biomass boilers and photovoltaics to help the scheme reach Code for Sustainable Homes Level 5.

Location: Histon Road, Cambridge

Local Planning Authority: Cambridge City Council

Site area: The proposal was for the redevelopment of a 0.28 hectare rectangular site. The site previously provided twenty-five one bedroom flats, a three bedroom warden's dwelling and eight one bedroom bungalows. The redevelopment of the site was required to bring the accommodation up to modern living standards. The site was located in the northwest of the city within an existing residential area. It was bound by a busy main road to the city on one side, with residential properties on all other sides, including small residential cul-de-sac fronting two sides.

Capacity: The proposed biomass unit was a 200KW boiler with a 4,000 litre accumulator vessel to provide top-up at peak demand.

Key planning issues: The application was granted subject to a planning condition related to the need for an approved maintenance plan for the biomass community heating. The plan was to be made available prior to the installation of the system. Cambridge City Council Environmental Services Department raised concerns about the impact on air quality as the site was just outside of an Air Quality Management Area. However, in this instance, the benefits of the scheme were deemed to outweigh any potential impacts. This was the first Code Level 5 scheme in Cambridge, which had a significant influence on the outcome of the application.





Case Study 2: Purepower, Northamptonshire

Proposal: The proposal was for a new waste treatment plant adjacent to an existing green waste composting operation. The applicant sought to construct a building to accommodate the drying and grinding of the wood in addition to a pyrolysis plant and two gas engines.

Location: Pebble Hall, Bosworth Road, Theddingworth, Lutterworth, Leicestershire. The access was within the Leicestershire district boundary but the site was located in Northamptonshire

Local Planning Authority: Northamptonshire County Council

Site area: The 1 hectare site was located alongside an existing composting site, within an old farm building complex. The complex was used for B8 warehousing units, with some workshops.

Capacity: The proposal would produce 40,000 tonnes of dry wood chip per annum.

Key planning issues: The application was granted. Key issued included the landscape impact, access for vehicles delivering wood waste and control of dust and noise. A condition controlled mud and debris tracked from the site by existing vehicles. Restrictions were also placed on the quantity of heavy goods vehicles allowed to visit the site per week. The decision notice specified that the waste materials to be processed at the site must originate within a thirty mile radius. There were no serious objections, so the application was determined under delegated powers.







Case Study 3: Wood fuel processing facility, Wigan

Proposal: The continued use of land and an existing metal barn for the storage, processing and distribution of timber and ancillary solid fuel sales.

Location: Lowton (near Wigan)

Local Planning Authority: Wigan Council

Site area: A 1 hectare site in an existing farm development, within the green belt. The site is bound by the A580, linking the M6 to the M60 and the M61.

Key planning issues: The application was recommended for refusal due to the site's green belt location. However, permission was granted for a five year temporary operation due to members' concern that the farm was failing. The use would provide a temporary means of farm diversification, thus protecting several jobs.









Case Study 4: Sheffield biomass facility

Proposal: A planning application for a biomass storage facility to provide a secure centre for wood storage and processing. The proposal included re-use of an existing compound and the development of a new structure. Wood fuel for the area was transported from a site in Barnsley, requiring a fifty mile round trip. There was a growing need for a local facility using local sources due to increased local wood fuel demand.

Location: Beighton Road, Woodhouse

Local Planning Authority: Sheffield City Council

Site area: The proposed site was between 0.5 and 1 hectare. The land was located on the northern part of the former Beighton landfill site, previously the main entrance to the landfill operation. The site was approximately seven miles southeast of Sheffield city centre, and approximately ten minutes drive, by a modern highway link, to junction 31 of the M1 Motorway. Access to the city centre was by a modern urban high-speed link. There were regular public transport links to the city centre and the Supertram network. The section of land was not part of the landfill operation. The land was fairly open and a few mature trees were located on the site periphery. The northern boundary abutted the public highway which could have provided access to utility services. The southern boundary was adjacent to the Shire Brook Valley, a local nature reserve. This boundary provided panoramic views across the valley to the south east of the city and beyond. Since the closure of the landfill site the land was gradually being landscaped to form part of the Shire Brook Valley, and the entire former landfill site was being reclaimed as public open space. The site was designated as green belt.

Capacity: The new storage facility would be 2,952 cubic metres





Case Study 4: Sheffield biomass facility (continued)

Key planning issues: The green belt location was the main reason for refusal. The Council referenced 'Planning Policy Guidance Note 2: Green Belts' and the Unitary Development Plan policies in the Green Environment section. These stated that new buildings in the green belt were inappropriate development unless they were for the purposes of agriculture and forestry or outdoor sport and recreation. Change of use and industrial operations were deemed inappropriate unless they maintained openness and did not conflict with the purposes of including land in the green belt. 'Planning Policy Guidance Note 2' states that visual amenity should not be compromised by proposals for development within or viewed from the green belt.

Since the Council had a scheme in place to reclaim the landfill site as public open space, the visual harm that the proposed wood fuel facility would have caused was judged in the context of the reclaimed site. The proposal was viewed as an industrial use which was not only inappropriate for the green belt location, but also detrimental to openness and visual amenity. Any connection to an activity ancillary to forestry was rejected on the grounds that the wood fuel would not be processed on forestry land, nor would it be sourced from woodland with a forestry use. The benefits of the facility did not outweigh the potential harm to the green belt. It was suggested that alternative sites in the Beighton area had not been considered sufficiently and that an industrial site in the city would be a more suitable location.



Case Study 5: Bishop's Castle Biomass Power Ltd

Proposal: Bishop's Castle Biomass Power Ltd proposed a renewable energy wood chip power plant with an embedded generator, exporting power to the local grid. The operation was to consist of a wood fuel combined heat and power plant, pelletiser and associated works. The development proposal was less than 5,000 m² and comprised two buildings, a reception area and external equipment. Potential fuel sources included energy crops, non-food crops and wood chip.

Location: Southeast of Bishop's Castle, Shropshire, a rural market town

Local Planning Authority: South Shropshire District Council

Site area: The site was east of Bishop's Castle Business Park. An open agricultural field was directly to the northeast. Storage for a builder's merchant was located to the south. Other nearby land uses included a school, a new residential area to the northwest and a sewage treatment plant to the east. Access to the site was from the B4385, which the applicant asserted had sufficient capacity to handle increased traffic load from the plant works. A track and footpath ran north of the site.

Capacity: 20,000 tonnes of dry wood chip per annum, generating 13 MW (thermal) maximum input, 2.5 MW (electrical) nominal net output and 4 MW (thermal) of heat use.

Key planning issues: After an appeal against non-determination, planning permission for this development was ultimately granted. The key issues raised during the appeal included the potential affects on the character and appearance of the area and the amenity of nearby residents, with particular reference to pollution, noise and disturbance. There was also considerable discussion on the efficiency of the plant and the suitability of biomass as a renewable energy technology.

During the original Inquiry concerns were raised by the Council and the public that the environmental and visual impact would outweigh the benefit of the biofuel technology. Despite the nearby Shropshire Hills being designated as an AONB, the appeal Inspector believed that the development would not be out of context with the industrial estate in which the proposed site was situated. The Inspector also contended that the site lay within an area identified in the 'South Shropshire Local Plan' where Policy S2 stated that industrial and business development would be permitted. The proposed pelletiser was considered to be an industrial use, but the proposed power plant would be unclassified. The combined use was deemed to be consistent with Policy S2.



Case Study 5: Bishop's Castle Biomass Power Ltd (continued)

The Planning Authority had reservations about the sustainability of the operation and its potential environmental impacts. The authority had previously asserted that technical information given was inadequate evidence about the operation's potential environmental effects. However, the Appeal Inspector was satisfied that local concerns about pollution, noise and disturbance could be effectively addressed by the imposition of appropriate planning conditions. There were also concerns about a sufficient supply of fuel within sustainable delivery distances. The Inspector found the operation to be sufficiently sustainable due to its central location to a large rural area, containing forests and woodland. A large sawmill nearby also supported this assertion. Overall, the scheme was deemed to be in accordance with a key principles of 'Planning Policy Statement 22' in that the proposed technology was viable and the environmental, economic and social impact of the proposal could be addressed satisfactorily.

A substantial part of the initial case against the proposal concerned the energy efficiency of the plant and the suitability of biomass technology. The Appeal Inspector dismissed these concerns by asserting that the operation could make adequately efficient use of resources by using combined heat and power (CHP) technology. The scheme proposed to incorporate a pelletiser which would utilise heat from the power plant. Thus, the operation would be a CHP enterprise and would therefore benefit from policy support for CHP initiatives. To ensure the efficiency benefits from this were achieved the Inspector advised that a planning condition should be imposed linking the proposed power plant with the pelletiser and precluding independent operation of the two. The original inquiry had sought provision of off-site heat and power mains maximising the advantages of CHP. However, the Appeals Inspector, while conceding that this provision would be beneficial, did not believe it was a necessary condition for the development to proceed.



Case Study 6: Silvapower at Ringstone Farm

Proposal: Silvapower and their partners at Ringstone Farm proposed a new barn on the existing farm site for the processing and storage of wood fuel. Wood fuel was already being stored at the site. The proposal was to increase this storage and allow wood chip to be processed on site. The raw materials were sourced locally.

Location: Brierley Commons, near Barnsley, South Yorkshire

Local Planning Authority: Barnsley Metropolitan Borough Council

Site area: The site of the proposed barn was on a farm amongst existing agricultural structures. Approximately 0.6 hectares of land was being used for the processing and storage of wood fuel. A farm and a few dwellings were close to the property.

Capacity: The new barn would provide an additional 540 cubic metres of covered storage space in which a turnover of approximately 2000 cubic meters of wood chip could be stored per year.

Key planning issues: This planning application was partially retrospective in that it sought to formalise the growth in wood fuel storage and processing on the site. When the operation first started several years prior, the Council confirmed that planning permission was not needed due to the minimal amount of wood fuel storage occurring. At the time the Council took the view that the minimal wood storage was an appropriate ancillary use to occur as part of a farm operation.







Case Study 6: Silvapower at Ringstone Farm (continued)

In addition to seeking to formalise the growth of the operation, the applicant wanted to obtain permission to build an additional barn. Initially the local planning authority used 'Planning Policy Guidance 2: Green Belts', to undermine the application, arguing that the production and storage of wood fuel could not be defined as agriculture or forestry. Since the initial response, the Local Planning Authority accepted that climate change mitigation and adaptation may constitute a special circumstance, in which they might allow the additional structure and wood fuel business growth in the green belt. The planning application is currently at the consultation stage. It is expected that, if permitted, the structure and aesthetic of the new barn would be conditioned to compliment the surrounding agricultural environment.



Case Study 7: Grange Farm wood fuel storage

Proposal: A retrospective application to store and season wood fuel to support the viability of Grange Farm. The operation consisted of the use of an existing metal barn and the adjacent area for the storage, processing and distribution of timber and ancillary solid fuel sales. Internet sales and deliveries accounted for the majority of the wood fuel business. However, fuel was also supplied to local buyers. Timber was delivered on site in the summer and seasoned and processed over several months before winter sales. On site sales took place primarily from November through to February. The majority of the wood storage was stacked 2.5m to 5.3m high, no higher than the eaves of the barn.

Location: Lowton, located to the north of Warrington

Local Planning Authority: Wigan Borough Council

Site area: The farm consisted of 21 hectares of arable land, 8.9 hectares of which was adjacent farmland leased from the Council. The farm fronted onto East Lancashire Road. The applicants owned 8.9 hectares of woodland in Cumbria with a forestry management scheme in place.









Case Study 7: Grange Farm wood fuel storage (continued)

Key planning issues: The wood fuel business was originally introduced to Grange Farm to utilise the wood waste generated by the landscape contracting business also operating on the site. The acceptability of the initial operations, three years prior, was confirmed by a letter from the Council. Due to the growth of the business and a desire to expand it, a planning application was made. The planning application sought permission for:

- The stacking of timber to specified heights on wood pallets;
- The installation of a wood cutting machine;
- The provision of a new hardcore standing adjacent to the barn to allow the processing of timber on the far side of the barn (further from adjacent properties); and
- The use of the barn for wood storage and sales.

The case was made that the farm would cease to exist if it was not financially supplemented by the wood fuel business. It was also argued that the disused farm buildings and property would cause greater harm to the visual amenity of the greenbelt than the wood fuel operations. The application was strongly supported by a report and supplementary statement made by an agricultural consultant. It carefully addressed why the operation should be permissible in light of relevant planning issues.

The farm was located within the green belt. The Council ruled that the wood fuel storage was an industrial use and therefore inappropriate in a green belt location. However, the wood fuel operation was granted a temporary five year permission to store and supply wood fuel for the purpose of upholding the farm's viability.



Case Study 8: Forest Fuels at Grasscott Farm

Proposal: The application was for a change of use to a commercial wood chipping station (falling within the B2 Use Class) allowing for the import of raw materials to Grasscott Farm. The farm was already processing wood fuel sourced on site. In order to meet increased customer demand, it became necessary to supplement on site supply by importing additional wood fuel.

Location: Grasscott Farm, Buckland Filleigh, near Shebbear, Devon

Local Planning Authority: Torridge District Council

Site area: 0.2 Hectares

Capacity: The farm produced 800 tonnes of wood chip per year from coppicing over the farm's 86 hectares of woodland. The figures are likely to be higher this year, as in the winter of 2009 to 2010 alone the farm processed a total of 620 tonnes of wood chip.

Key planning issues: The existing site access would be retained. Site traffic was expected to double. Since the surrounding roads were already used by HGVs, no additional improvements to the road network were expected. The Highways Authority recommended that visibility splays be provided at the site access. The land would continue to be used for forestry and agriculture with a minimal increase in wood fuel processing. As no sensitive residential properties were within the zone of impact, noise would not be a key issue.

The council granted planning permission citing two conditions. The commercial use was restricted to wood-chipping and operations were limited to normal business hours.









Case Study 9: Boiler for North Yorkshire Forestry Commission offices

Proposal: The replacement of the existing oil burner serving the Forestry Commission office in North Yorkshire with a wood pellet boiler. Planning consent was required for the wood pellet store. The boiler was permitted development.

Location: Outgang Road, Pickering, North Yorkshire

Local Planning Authority: Ryedale District Council, Malton, North Yorkshire

Site area: A small area just outside of the office building.

Capacity: A 50 KW wood pellet boiler, with a 13 cubic metre wood pellet store holding approximately 8 tonnes of wood pellets.

Key planning issues: The planning application highlighted that the proposal would save approximately 10,000 litres of oil per annum, which would be replaced with 25 tonnes of wood pellets from sustainably managed forests. Wood pellets would be delivered in bulk, requiring three to four deliveries per year. Pellets would be blown into the store and then fed by blower and auger feed to the Frohling wood pellet boiler, which would be internally situated. The flue for the boiler would be fitted within the existing chimney stack. The store could be accessed from the existing car park as the delivery lorries blow the pellets up to thirty metres. A two metre high stained post and timber rail fence would screen the development.

The application was granted planning permission, supporting the Forestry Commission in reducing their carbon footprint through less energy use and replacement of fossil fuels. As the existing oil storage tanks were not double bunded, their removal contributed to increased environmental protection.





6. Issues to consider

Wood fuel has significant potential to contribute to the achievement of government targets for renewable energy. Each wood fuel proposal should be seen as an opportunity and Development Management Officers should work with applicants to address the following impacts:

Landscape and visual factors

A landscape and visual impact assessment may be required in support of applications, particularly for wood fuel proposals within green belts and AONBs.

Transport

Traffic volume can increase as vehicles move to and from the site in order to transport biomass fuel and subsequent by products. However, wood fuel proposals do not necessarily have a significant transport impact. Transport Statements should support applications and Highways Officers should be consulted at the outset. Conditions can limit traffic movement to normal business hours.

Environmental issues

Environmental Health Officers should provide early advice for operators on mitigating airborne and waterborne emissions.

Habitat management

Wood fuel planning permissions can be used to regulate unmanaged woodland. Woodland management plans can be required to accompany an application, or as a condition. Management plans should consider the role of woodlands in promoting biodiversity.

Noise

Apply BS 4142 to noise from traffic and plant operations where appropriate.

The local economy

The supply of biomass fuel can secure a long-term income for farmers, woodland landowners, contractors









6. Issues to consider

and transport operators in rural areas. Temporary permissions may be used to support the viability of local farms.

Local Development Orders

An order could be applied to extend permitted development rights for agriculture and forestry to include some wood fuel processing, supporting diversification of the rural economy.





6. Sources of additional information

- Regen SW, Wood fuel Storage, August 2008 (http://www.regensw.co.uk/)
- **Northwoods**, The North East's Woodland Initiative, New Heat Planning Guidance for the North East, March 2008 (http://www.northwoods.org.uk/)
- The Mersey Forest on behalf of North West Regional Leaders Forum,
 Installing Biomass Heating Systems Advice Note for Development Control Planners, October 2008
 Installing Wood Fuelled Heating, Advice Note for Householders, October 2008
 - Installing Biomass Heating Systems, Advice Note for Developers, October 2008 (http://merseyforest.org.uk/)
- RTPI Climate Change Compendium (http://www.rtpi.org.uk/)
- Forestry Commission (http://www.forestry.gov.uk/england-woodfuel)
- **Biomass Energy Centre** (http://www.biomassenergycentre.org.uk/)
- Forest Research Wood Fuel Information Pack (http://www.forestry.gov.uk/fr/INFD-66-SHAG)

