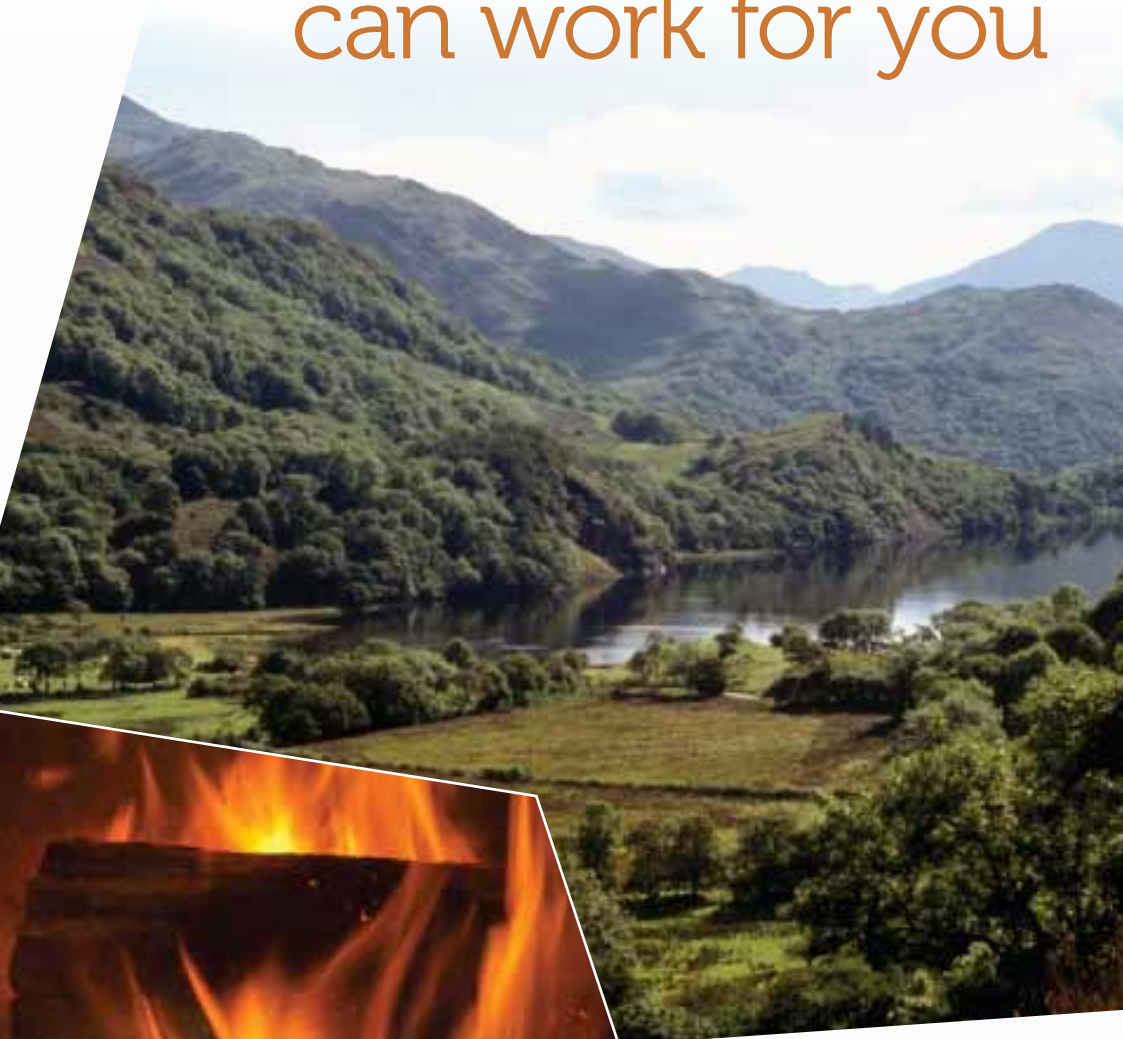


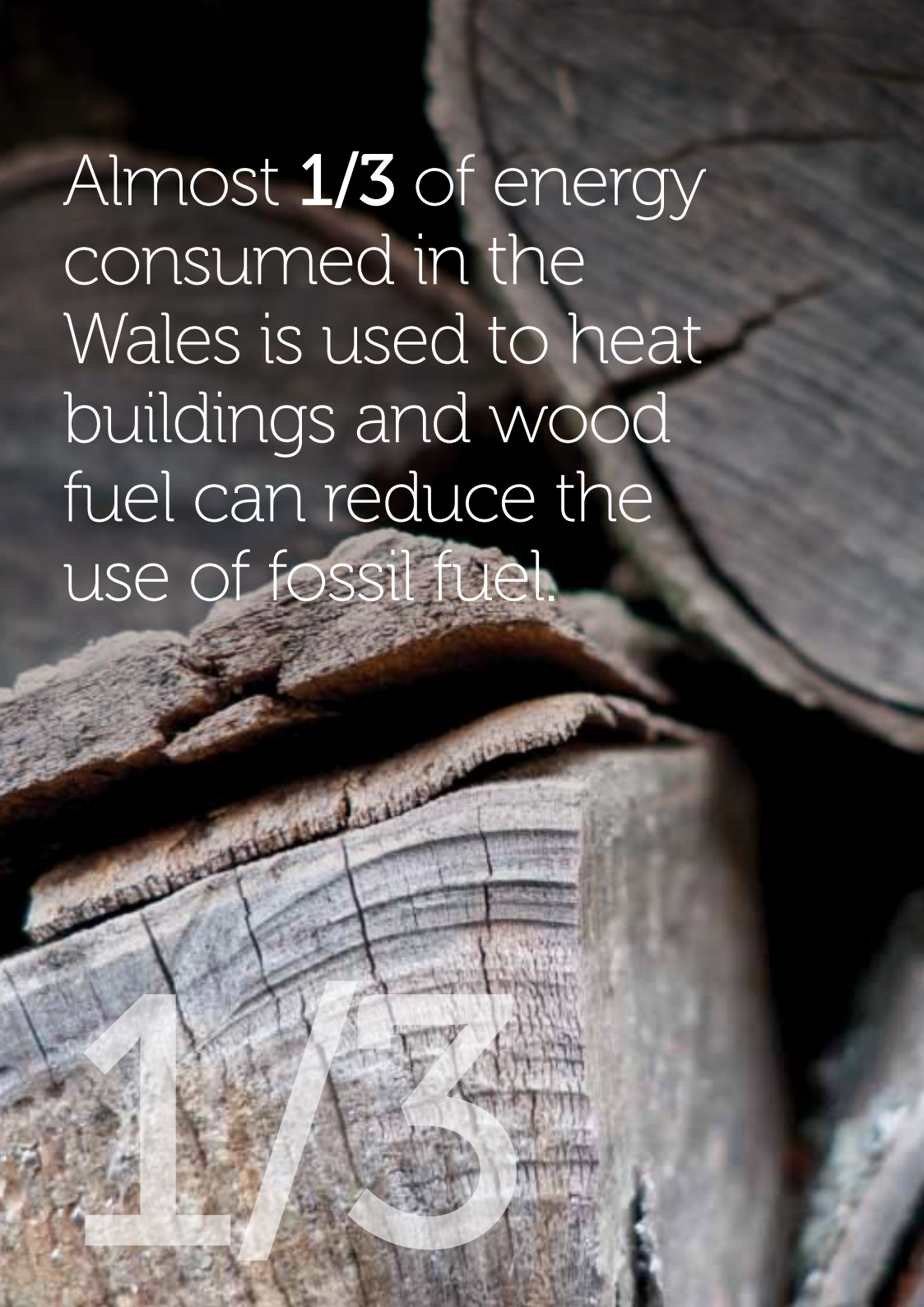
How wood fuel can work for you




woodfuel
WALES

Keeping the home fires burning

www.woodfuelwales.org.uk



Almost **1/3** of energy consumed in the Wales is used to heat buildings and wood fuel can reduce the use of fossil fuel.

What Woodfuel Wales is all about

We are the national member organisation representing wood fuel growers and suppliers, and heating systems suppliers and installers in Wales and the Marches.

Our mission is to promote the efficient supply and use of wood fuel as a clean, low-carbon and sustainable source of heat energy.

It's all about the battle with fossil fuels and meeting the Government's 2020 target for reduced carbon emissions.

We believe that wood fuel can reduce the use of this damaging heat and energy source in Wales, and help to strengthen the economy.

The Welsh Assembly Government, the Forestry Commission and many regional organisations support us. We work together with leading bodies in the wood fuel and biomass industry to offer a strong, coherent message to Government about what we can achieve by working together.

So what do we actually do?

At Woodfuel Wales, we're busy achieving our aims to:

- Represent everyone involved in the growth and supply of wood fuel in Wales through our membership
- Advise and raise awareness within Government at all levels on legislation affecting wood burning
- Educate developers, builders, architects and homeowners on the benefits of clean, efficient wood burning
- Champion a robust quality certification scheme to ensure Welsh wood fuel meets recognised standards

Want to get involved? Why not become a member? Just contact us using the details on the back of this booklet and we'll send you a form.

"I welcome the publication of this booklet, which provides further clarification about the use of wood fuel. The renewable energy sector is evolving and each technology within it has different needs. The use of wood for fuel is in line with the Welsh Assembly Government's Woodlands for Wales forestry strategy and, therefore, it supports measures to bring more woodlands into active management."

Elin Jones AM, Minister for Rural Affairs

Modern wood fuel technologies can achieve burner efficiency well over **85%**



85%

Why use wood in Wales?

Wood is a natural and renewable fuel that has provided comfort and warmth for millennia. It's considered carbon-neutral because the carbon dioxide released when it's burned is absorbed during its growth. As our supplies of fossil fuel become scarcer and more expensive, wood fuel can provide a clean, efficient, renewable source of alternative heat energy.

Local wood for local use

Using locally supplied wood reduces the energy needed for transport as it has a shorter distance to travel - so it's better from an environmental viewpoint. This can also mean it's cheaper than buying imported fuel.

More importantly, if you buy local you'll be supporting businesses in your community and helping to create a stronger Wales. You'll be encouraging landowners and farmers to manage their woodlands more effectively - improving biodiversity and safeguarding the future of our forests.

Make sure you ask your supplier if your wood fuel is from a local, sustainable source.

Meeting our 2020 targets for carbon reduction

For businesses and communities in Wales, adopting wood fuel along with other renewable energy sources will make a significant difference to meeting these targets. This, together with the Government's new Renewable Heat Incentive (RHI) scheme, will help to develop a sustainable green economy.

Creating a cosy home

Lighting up an efficient wood burning stove is one of the most warming, comforting things imaginable on a chill winter day. The crackling sound of kindling and reassuring heat of wood burning can create a deep sense of homeliness and calm.

Using a wood burning stove in early autumn and late spring also means you can keep the central heating switched off for longer. People who already have a stove often report reducing their energy bills by over 50%.

Logs

The most common form of wood fuel, logs can come from many different species of tree. They are the least processed fuel and can be the most consistent in quality.

Used in: wood burning stoves, cooking ranges and small-scale domestic boilers ranging from 3kW - 55kW output.

Size: the boiler or stove dimensions determine log length, but ideally they should be between 10cm and 15cm in cross-section, to aid drying.

Top tip: the key to good log burning is that the wood is well seasoned. Ask your supplier how long it has been seasoned before buying.

Briquettes

Usually brick-shaped, briquettes are made of compressed sawdust. They can be used in place of logs in most situations. They're generally more expensive than logs, but are cleaner to handle, more uniform in shape and easier to store.

Used in: wood burning stoves, cooking ranges and small-scale domestic boilers ranging from 3kW - 55kW output.

Size: usually in shape of brick about 15cm long or "nugget" shape about 5cm in cross section, or log of about 7cm diameter and up to 30cm long.

Top tip: don't confuse wood briquettes with those that are made from peat, which is not a renewable heat source.

Kindling

Kindling is the material used to start a fire. It's usually small pieces of dry softwood, which is easy to dry and more combustible than hardwood.

Used in: wood burning stoves, cooking ranges, boilers and barbeques.

Size: usually 15cm - 25cm long and ideally about 2cm in cross-section.

Top tip: take a look in your bag of kindling and make sure it's clean and dry.

Wood pellets

Compressing the sawdust and wood shreds produced in saw-milling and manufacturing forms these dry, cylindrical pellets. They are high density, easy to handle and economical to transport.

Used for: both small domestic appliances and large-scale purpose-built heating and electricity plants; outputs can range from 3kW to over 70kW.

Size: manufacturers specify the diameter and length of pellet required for their appliances.

Top tip: it's essential to keep pellets dry as they easily re-absorb moisture and become unusable.

Learn more about domestic wood fuel at www.woodfuelwales.org.uk

Clean energy for commercial use

Wood fuel is a cost-effective, clean source of heat for medium and large-scale commercial boilers. It's often used in large country homes, farms, schools and leisure facilities.

On a larger commercial scale, wood fuel can be used alone or combined with other energy sources to provide local communities and industries with district heating and hot water, as well as electricity.

Woodchip

Chips are generally produced on a commercial scale from forestry offcuts using an industrial wood chipper machine. They are then kept in a large fuel bin or store and can be transferred to a boiler by an automated process.

Used for: medium-scale commercial and industrial units, community heating projects and district heating systems within the 70kW - 5mW range.

Size: from 2mm - 5cm.

Top tip: good quality chip is crucial to preventing automated systems breakdown, so make sure the wood has the right moisture content and has been produced to the correct size specification to suit your appliance.

Find out how commercial wood fuel can save your business money www.woodfuelwales.org.uk





The ideal moisture content for logs is **25%** or less



The beauty of wood

If you've ever walked through the glade of a Welsh woodland, you will have noticed the many different kinds of trees surrounding you, most of which burn well as fuel. The wood from these trees is largely grouped into two classes: hardwood and softwood.

Seasoned hardwood like ash, oak, beech, birch, sycamore and hawthorn tend to give a longer burn as they're denser than softwoods.

Softwoods like pine, larch, spruce and fir tend to burn quicker and are usually used for kindling. However, if you measure both hardwood and softwood by weight, they have roughly similar energy contents.

Protecting the environment and wildlife

Sourcing wood fuel from well-managed, local woodland helps improve biodiversity and wildlife habitat. It also helps sustainability by allowing growers to replant trees. Woodlands like these can support an astonishing diversity of plants, fungi, mosses, birds, mammals and amphibians.

Moisture matters

How wet or dry your wood is affects the way it burns and the amount of heat it gives out. Burning green wood generates very little heat, produces excess steam and smoke, and can create tar that damages your stove and blocks the chimney - increasing the risk of chimney fire and fumes escaping back into the room.

All wood needs to dry for at least a year before it can be burned. This is called 'seasoning'.

Seasoned logs are often more expensive than green logs. If you've got storage space you can save money and guarantee quality by buying logs one or two years ahead and seasoning them yourself. Cut and split your logs to the right size and store them under cover with good all-round air circulation, then check them with a moisture meter to make sure they're below 25% moisture content.

Have you got a moisture meter?

A moisture meter is not expensive and it allows you to do a quick check to see if the wood you're buying is properly seasoned. It's worth investing in a good one as this will help you get the best efficiency and heat from your logs.

Having a stove in your home

- Make sure the stove has been properly tested and meets the building regulations for minimum efficiency. For a list of approved stoves, log on to www.hetas.co.uk
- The law requires that wood burning stoves are fitted either under building regulation approval or by a registered installer scheme, like the one operated by HETAS
- Check that you are not in a smoke control area and if you are, make sure your stove is an 'exempt appliance'. If it's not, you will need to use smokeless fossil fuel. For more information, have a look at smokecontrol.defra.gov.uk



Working towards wood fuel quality certification

Having a robust quality assurance scheme for wood fuel in Wales is essential to making consistently good fuel available.

We want everyone buying wood fuel to feel confident that it's of the best possible quality. Whenever you can, make sure you buy from reputable suppliers of good quality wood fuel.

Getting there with HETAS

We're working closely with the HETAS (Heating Equipment Testing and Approval Scheme) to progress the quality certification scheme in Wales. HETAS is the official body dealing with all matters relating to solid fuel, wood and solid biomass.

Look out for the HETAS quality mark on good quality wood fuel - especially logs. It's a sign that your wood fuel supplier has been assessed in line with European standards and awarded HETAS approval.



Expect to see quality suppliers signing up to the assurance scheme run by HETAS. With consistent product labelling, it will be easier for you to choose the right fuel for your appliance. See www.hetas.co.uk for more.

Become a Woodfuel Wales member

Join up to Woodfuel Wales and add your voice to the growing community of wood fuel supporters in Wales. As a member you get:

- Free listing on the Woodfuel Wales website and directory
- News bulletins by email, with updates on all the latest wood fuel issues
- Access to the Woodfuel Wales members-only area of our website
- The chance to share your views on wood fuel via our forum
- Voting rights at our meetings
- Reduced rates to join the HETAS wood fuel quality scheme

Get in touch using the contact details on the back of this booklet and we'll take it from there.

"With the help of a local Woodfuel Wales member, we have been able to reduce our heating costs and make our contribution to carbon reduction in Wales."

JPR Williams

Why wood fuel?

- Reduces your fuel bills and dependence on fossil fuel
- Improves local woodland biodiversity and creates recreation spaces
- Uses up wood from saw mills, tree surgeons and local authorities
- Provides a low-cost, green alternative to expensive imported fossil fuels
- Contributes to Wales and UK renewable energy targets

For more information about using wood fuel and details about membership, please contact us or visit our website.

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Woodfuel Wales is part of the Wales Forest Business Partnership

www.woodfuelwales.org.uk

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