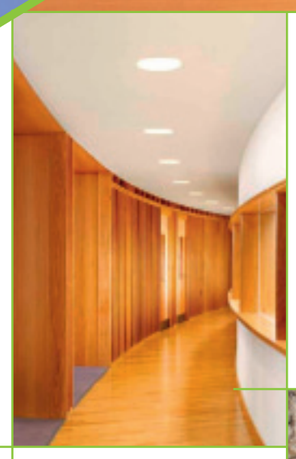
Energy generation in Ireland depends mainly on fossil fuels. Unlike wood, all are non-renewable and all contribute to the release of CO_2 and other greenhouse gases which result in global warming

Forests contribute to lowering concentrations of CO_2 in the atmosphere by taking up the gas and converting it to cellulose in wood

Cherry



Wood is highly prized by architects, engineers, sculptors and woodworkers because it provides them with opportunities to maximise creative expression.

Wood energy is a renewable carbon neutral energy resource that can be harnessed to produce heat and power. It is sourced either directly from the forest or from processing timber by-products.

The energy of wood

In addition to supplying construction, furniture, panel board, fencing and packaging, timber and forests play a key environmental and energy role: wood energy, in the form of wood chips and pellets (left). will make a major contribution to Ireland's heat and power needs while Irish forests can contribute about 20% of the reductions in national emissions that Ireland needs if we are to meet our Kyoto target.

The beauty of wood

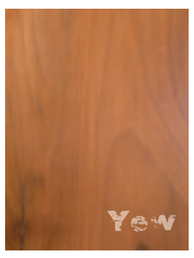
Scots pine

Sitka spruce

Timber is the oldest construction material, first used in the primeval forest as rough shelters and huts. This timber building still survives in Scandinavia dating to the 13th century.

The age of wood

Oak is strong and durable and lasts for centuries if properly treated. In Ireland, architects use native oak as well as a wide range of other species for internal and external use.



This yew tree in Co. Wicklow is over 700 years old but it is only a child compared to the bristlecone pine 'Methuselah' in California which is almost 4,800 years old.

Wood is renowned for its acoustic qualities. Sitka spruce is used for making guitars, violins and harps while eleven woods are used for making classic grand pianos: spruce, hornbeam, beech, mahogany, larch, boxwood, maple, poplar, walnut, baya and ebony.

The sound of wood

The acoustic qualities of wood are also valued in uses such as timber acoustic fencing, often referred to as noise barriers. These structures are designed to absorb the level of noise from motorway traffic. They are aesthetically pleasing, sustainable and long lasting noise reducers.

Oak

Beech

WOOD...

Sustainably managed forests are widely acknowledged for the key role they play in climate change and sustainable living. Wood produced from sustainably managed forests is a renewable and environmentally friendly resource. During the growing stage, forests remove CO_2 from the atmosphere and convert it to cellulose – the building blocks of wood and living biomass – in a process known as carbon sequestration.

The positive role that trees play in climate change continues into the wood products arena. Construction timber, furniture and other wood products act as carbon stores, often for centuries if treated properly and maintained. In Scandinavia, timber houses and churches still survive from the 13th century. Wood used in building for structural and non-structural applications has a significantly lower carbon footprint than materials that use fossil fuels during manufacture. A cubic metre of wood stores between 0.7 and 1.0 tonne of CO_2.

Ireland is developing a wood and forest culture after centuries of exploitation and neglect. We still have the lowest forest cover in the EU but in the past quarter of a century forest cover has doubled to 10% and annual production has trebled to 3.5 million cubic metres of roundwood contributing over €1.8 billion to the economy each year.

The Wood Marketing Federation and The Tree Council of Ireland actively promote the use of timber provided it is sourced in sustainably managed forests in Ireland and overseas. This approach ensures that wood is the most sustainable and renewable resource on the planet.

...the sustainable resource

Wood has been an important construction material for centuries. Today, it is engineered to provide even greater strength qualities. Engineered wood includes glulam which is used in sports' arenas, glasshouse supports and concert halls.

The renewability of wood

Unlike gas, oil and minerals, wood is a renewable natural resource. This means that, as long as we grow and manage our forests wisely, we will always have enough for our use.

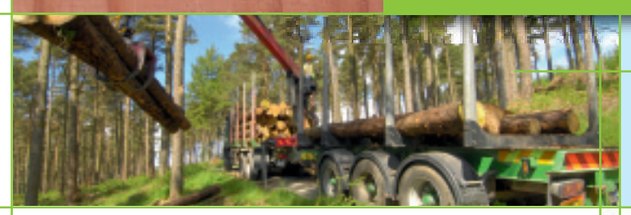
For every one tree felled in Ireland, four trees are planted.

The strength of wood

iroko

Douglas fir

There is no waste in wood. After a log is sawn for construction, joinery, veneering, fencing and other uses, the remainder is processed into panel board products, paper, energy efficient fuel and horticultural products.



Wood produced from sustainably managed forests is a renewable and environmentally friendly resource.

The versatility of wood

Small logs, wood chips and sawdust are processed into high added value panel boards which in turn are manufactured into products as diverse as door mouldings, furniture, shop fronts and pool tables.

Timber should be treated with woodstains or wood coatings for both internal and external use. Properly treated timber remains aesthetically pleasing and durable for many generations.

The durability of wood

The sustainability of wood

Solar energy provides the energy for tree growth, during which carbon dioxide is taken up and removed from the atmosphere in a process known as carbon sequestration. The effectiveness of wood in mitigating climate change begins therefore in the forest.

The energy used in harvesting and processing wood is far less than other building materials such as concrete and steel.

Red oak

WOOD MARKETING FEDERATION

The Wood Marketing Federation was founded in 1989 to promote wood as a renewable, sustainable and versatile natural material.

www.wood.ie

The Tree Council of Ireland was formed in 1985, to promote the planting, care and conservation of trees in Ireland.

www.treecouncil.ie

Tree Council of Ireland

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