

Irish forestry and renewable wood energy

- Government targets for renewable energy are:
 - Overall 40% of electrical consumption from renewables by 2020;
 - 12% renewable heat by 2020 (5% by 2010);
 - 30% co-firing with biomass at the 3 peat power plants by 2015;
 - 800 MW of CHP by 2020 with emphasis on biomass CHP;
 - 10% transport biofuels by 2020 (5.75% 2010).
- Wood is a renewable, climate-friendly fuel. It can be grown and supplied from Irish forests at a cost of between €110-€125/tonne, if delivered straight from the forest.

- Current use

After wind energy, wood fuels are the largest contributor to renewable energy generation in Ireland – contributing about 4.7 PJ of energy to renewable energy use. Overall, renewable energy contributed just 2.9% of total primary energy requirement in Ireland in 2007, far below a sustainable level and an indication of the challenge ahead in the move to renewable energy.

- Wood biomass usage in 2008 was:

Biomass use type	2008 000 m ³
<i>Domestic and light industrial use</i>	
Firewood including imports	54
Wood chips (solid underbark)	63
Short rotation coppice (SRC)	1
Sub total	118
<i>Industrial use</i>	
Use of residues and post consumer recovered wood (PCRW) by wood-based panel mills (WBP), sawmills and Edenderry Power	611
Total biomass input	729

The largest single use of wood for energy is within the forest products sector itself.

Overall, the use of wood fuels saved some 380,000 tonnes of CO₂ in 2008 (over and above carbon sequestered in Irish forests). This equated to greenhouse gas emission savings in the region of €7 million.

Wood fuel use in recent years has increased considerably, as cofiring at the Bord na Móna Edenderry plant expanded to commercial scale. Use of wood chip in commercial applications also increased, in line with new SEI grant-aided boilers coming on stream. Continuation of these policies is essential to drive the market for wood fuels.

- Future use and supply

Projections to 2020 indicate that to meet the Government targets outlined a biomass supply of around 4 million green tonnes per annum will be required. It is unlikely that the forest sector could supply more than half of this volume – but it is a target that highlights the need for afforestation to get back to a level of at least 15, 000 ha per year, and the need to drive supply and demand for wood fuels from short rotation forestry and other sources. There is also scope to considerably expand supply from final harvesting residues and more intensive thinning of both publicly and privately owned forests.

COFORD is currently updating production forecasts from the forests of Ireland and these are now available for privately owned forests. This work is taking place in tandem with the Bioenergy Working Group of the Department of Communications, Marine and Natural Resources.

- Need to sustain supply of wood fuels over the long term

Sustaining wood fuel production beyond 2020 from Irish forests is dependent on a continuation of policy measures and critically on the level of afforestation over the next two decades. Wood fuels are mainly sourced from young forests. A balanced age class structure at national level is therefore a prerequisite for sustained supply. Planting since 1990 has established about 250,000 ha of new forests. As the figure shows – an annual afforestation programme of c. 15,000 ha per year, and preferably considerably more, needs to be put in place for an extended period – up to two decades – to provide the long-term sustainable supply of wood energy that is needed to sustain renewable forest energy.

Simply stated, if afforestation continues to fall below 15, 000 ha per year as in recent years then wood fuel supply will not be sustainable in the long term. It will therefore not be possible to meet the government’s long term targets for renewable energy from our national resources. As security-of-supply is a key issue in government energy policy, national afforestation levels and funding must reflect this need.

