





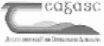


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## Biomass workshop

Steve Luker – County Clare Wood Energy Project


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## Workshop 4

### Application of the technology



**What makes an attractive wood energy investment project?**

- Older gas, oil or LPG boilers (investment planned?)
- Connected to an existing 'wet' system.
- Energy bills in excess of £50,000 per annum.
- A stable heat load
- Key decision makers open to the prospect of financial investment
- Willing to commit time to a development process.
- Owners pay energy bills ie not volume housing

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## Biomass in context

**'Globally, biomass use amounts to nearly one billion tonnes of oil equivalent, a level comparable to the consumption of natural gas or coal. This makes it the largest renewable source in use today'**  
(source Renewable Energy World July 2005)

- But awareness of biomass was very low (eg 94% 'never heard of it')...but is GROWING!

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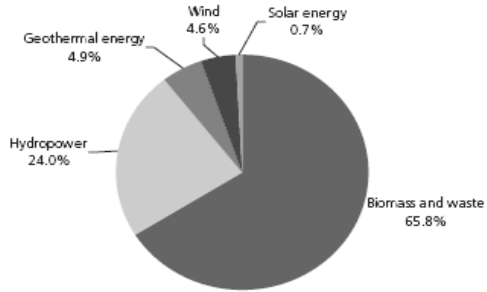
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## Worldwide RES (source eurostat 2006)




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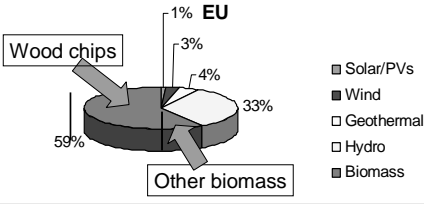
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**Renewables in context:** Across the EU over 7% of all energy used is from a range of renewable sources.

### Use of Renewable Energy Across the EU



**51% of Europe's renewable energy comes from wood (this is over 100 million cubic metres annually)**  
**96% of all Europe's renewable heat comes from wood.**

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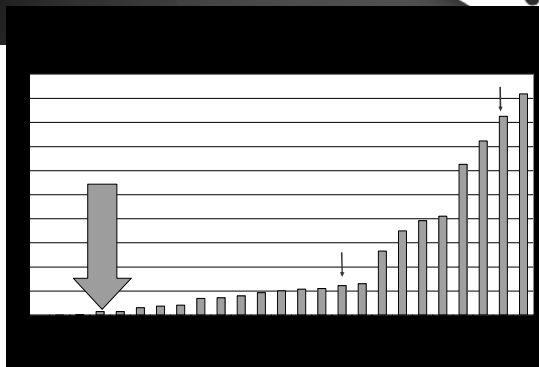
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## How far is Ireland behind?




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## Ireland – renewable energy



### Technology Tonnes of Oil Equivalent

Technology	Tonnes of Oil Equivalent
Solid Biomass	184,000
Wind	58,000
Hydro	54,000
Landfill Gas	30,000
Biogas	10,000
Solar Thermal	300
Geothermal	51
Total	336,351

A little over 3% of Ireland's energy needs are met from renewable sources; primary consumption of energy in Ireland (in 2004) was 14.7 million tonnes of oil equivalent and renewables contributed 0.336 million tonnes of oil equivalent. [1]

[1] Source: SEI

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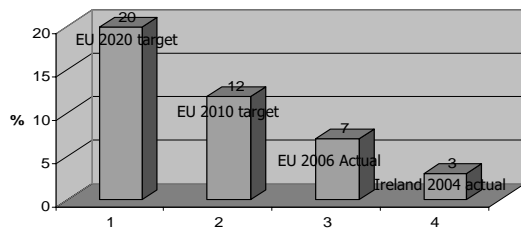
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## Ireland compared to the EU



### renewable energy deployment




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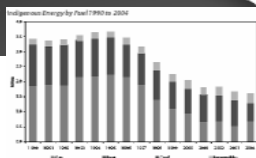
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## Other Issues



(all statistical sources quoted are from SEI).

**Ireland now imports over 90% of its energy.**

Since the mid 1990's the share of indigenous energy has fallen quite substantially. 1995 was 3.7 mtoe by 2004 1.5 mtoe.

The only sector of indigenous energy to rise in the last 10 years was renewables – This suggests that renewables are set to play an increasingly important role if the reliance on imported energy is to be stabilised or even reduced in Ireland.

**Energy costs are rising sharply** – Industrial consumers of energy have experienced a doubling of heating oils and gas prices over the last 4 years. In 2002 fuel oil was about 31 to 34 cents a litre and at the start of 2006 it was about 54 cents a litre. Natural gas prices show at least a 120% rise from 2002 to 2006.

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## The scale of the opportunity in County Clare



- A 10% share of the Co Clare heat market is worth 7m Euro
- This is 120,000 tonnes of wood at 35% m/c
- This is 240 MW rated capacity of boilers in Co Clare
- This is 360 net additional jobs in Co Clare

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## The Economics in County Clare




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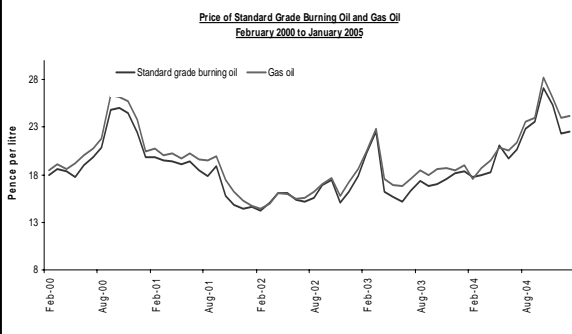
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## Fossil fuel oil prices




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