



ROYAL COMMISSION ON ENVIRONMENTAL POLLUTION

Biomass and Biofuels

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ROYAL COMMISSION ON ENVIRONMENTAL POLLUTION

About the Royal Commission

- The United Kingdom's Royal Commission on Environmental Pollution is an independent standing body established in 1970
- It advises on both national and international matters concerning the pollution of the environment, on the adequacy of research in this field, and on future possibilities of danger to the environment



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RCEP Energy Report, 2000

- Recommended a 60% cut in the UK's annual CO₂ emissions by 2050
- Viewed use of biomass as a significant way of meeting this commitment





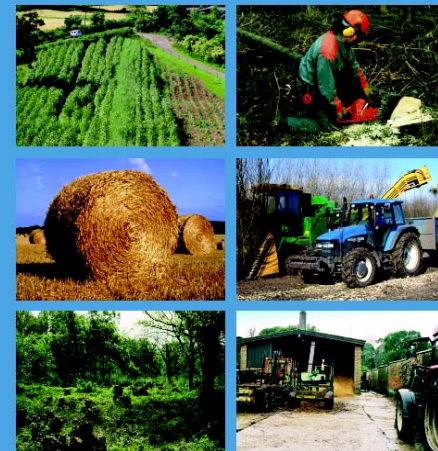
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RCEP Biomass Report, 2004

- Confirmed biomass as a viable option
- Showed the greatest emission reductions were through use of renewable heat and power in Combined Heat and Power (CHP) plant

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Biomass as a Renewable Energy Source





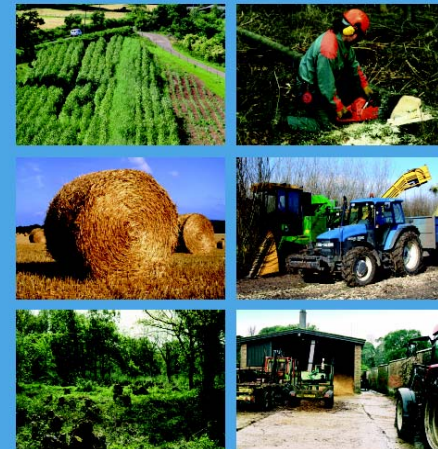
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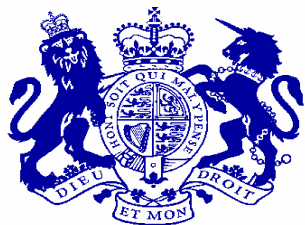
RCEP Biomass Report, 2004

- Woody biomass for CHP gives a higher energy yield per hectare than transport fuels from cereals or oil crops
- Led to the UK Biomass Task Force in 2005, and the UK Biomass Strategy in 2007

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Biomass as a Renewable Energy Source





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UK Biomass Strategy, 2007

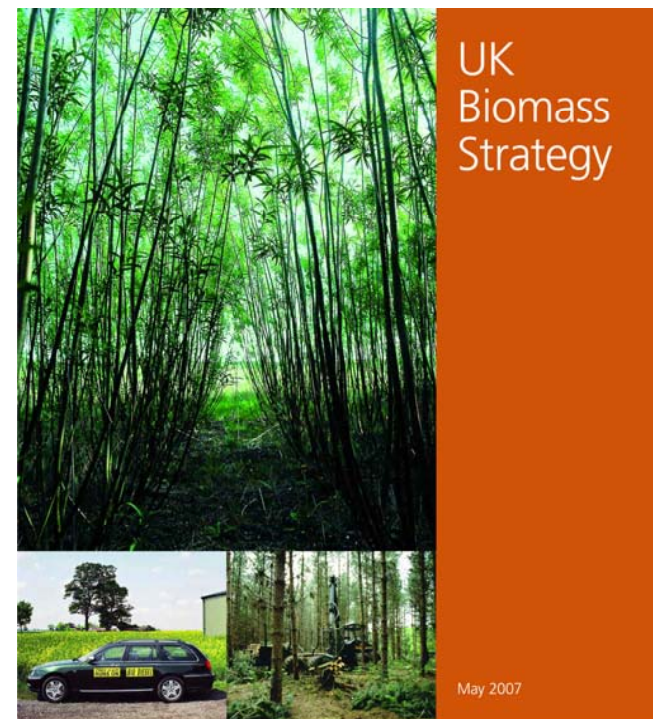
Hierarchy of cost of carbon savings (£/tonne C saved)

Better

- Biomass heating
- Biomass CHP
- Co-fired electricity in fossil fuel plants

Worse

- Dedicated biomass power plant
- Transport biofuels



dti Department for Transport

defra Department for Environment Food and Rural Affairs

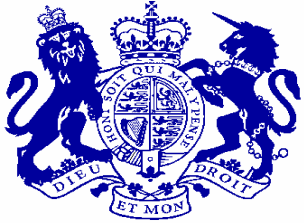


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January 9th 2008 Letter

Open letter to the Environment Minister...

- Emphasised the importance of biomass
- Highlighted the particular importance of renewable heat in the UK context
- Stressed the much lower benefit from biofuels
- Noted other environmental and land use concerns associated with biofuel production



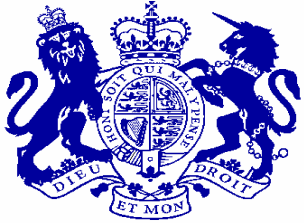
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January 9th 2008 Letter

Clearing land for biofuels can lead to:

- Reduced biodiversity
- The release of Green House Gases (GHGs)

...But World Trade Organisation concerns limit control of how imports are produced



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Within the EU...

1st Generation biofuels require heavy inputs so:

- They are consequently less carbon neutral
- There may be NO_x releases to the atmosphere
- Their production could lead to higher food prices

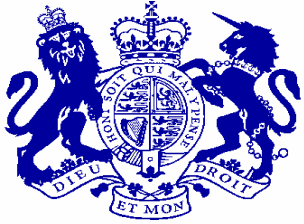


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Within the EU...

In particular:

The development of biofuels policy has diverted effort from improving energy efficiency standards in road transport



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Within the EU...

Future generations of biofuels are desirable if:

- There is an emphasis on the by-products of food crops
- Land use/ecological concerns are addressed
- Industry has not been locked into undesirable 1st generation production