

The Role of Biomass in Meeting Our Energy Challenge

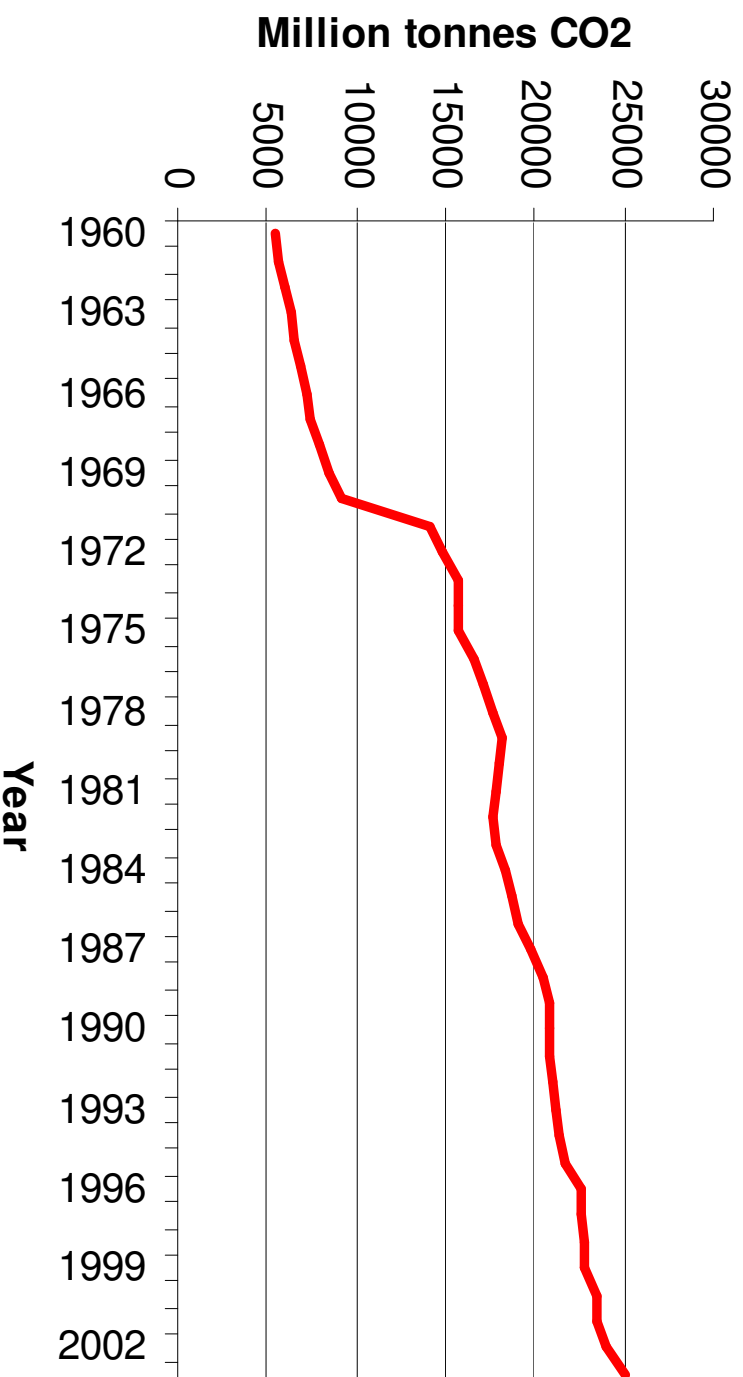
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Emerging Energy Technologies
Unit

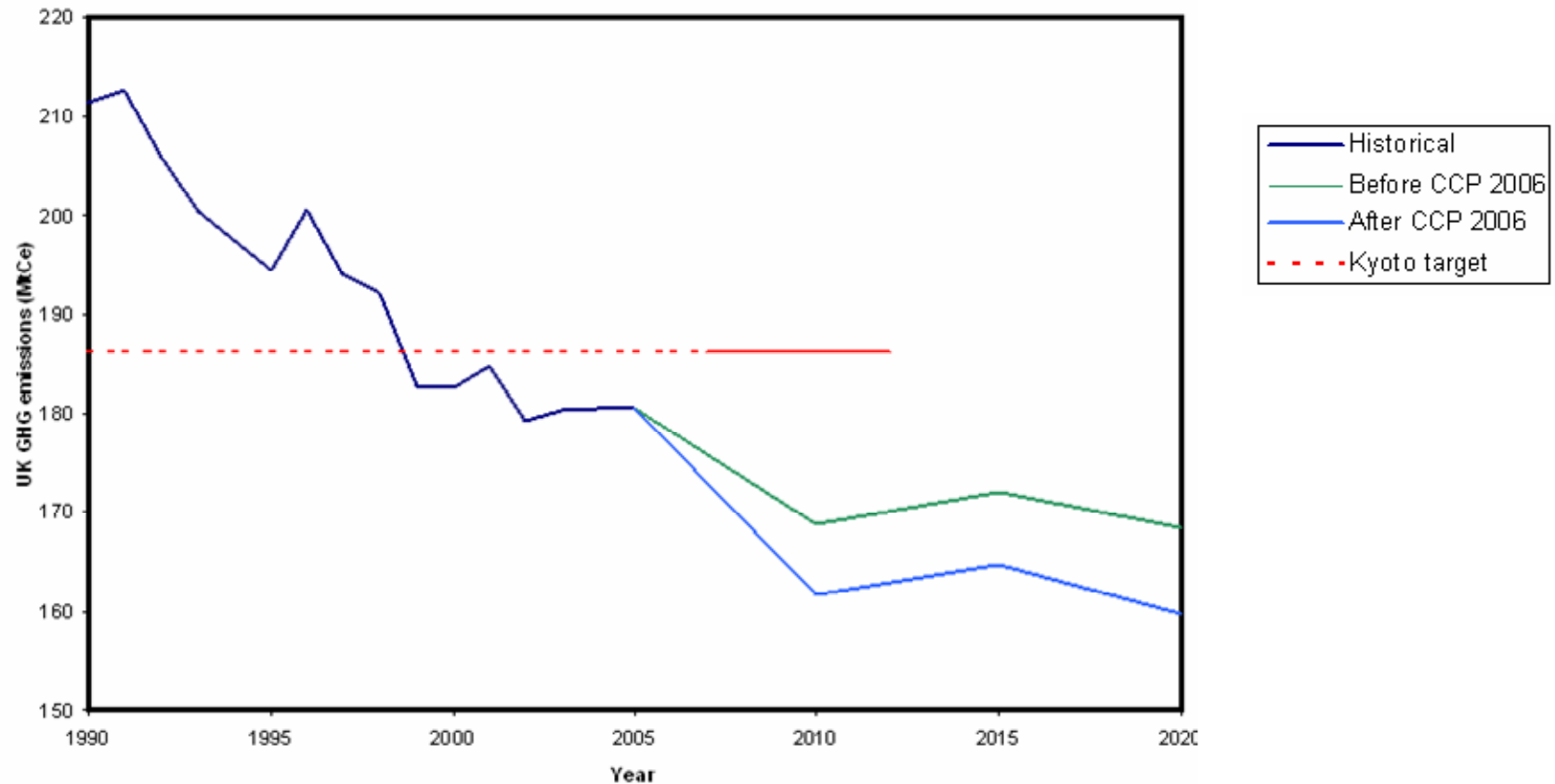
Climate Change is real.....



Global carbon dioxide emissions 1960-2003



UK greenhouse gas emissions and projections



Energy Policy goals

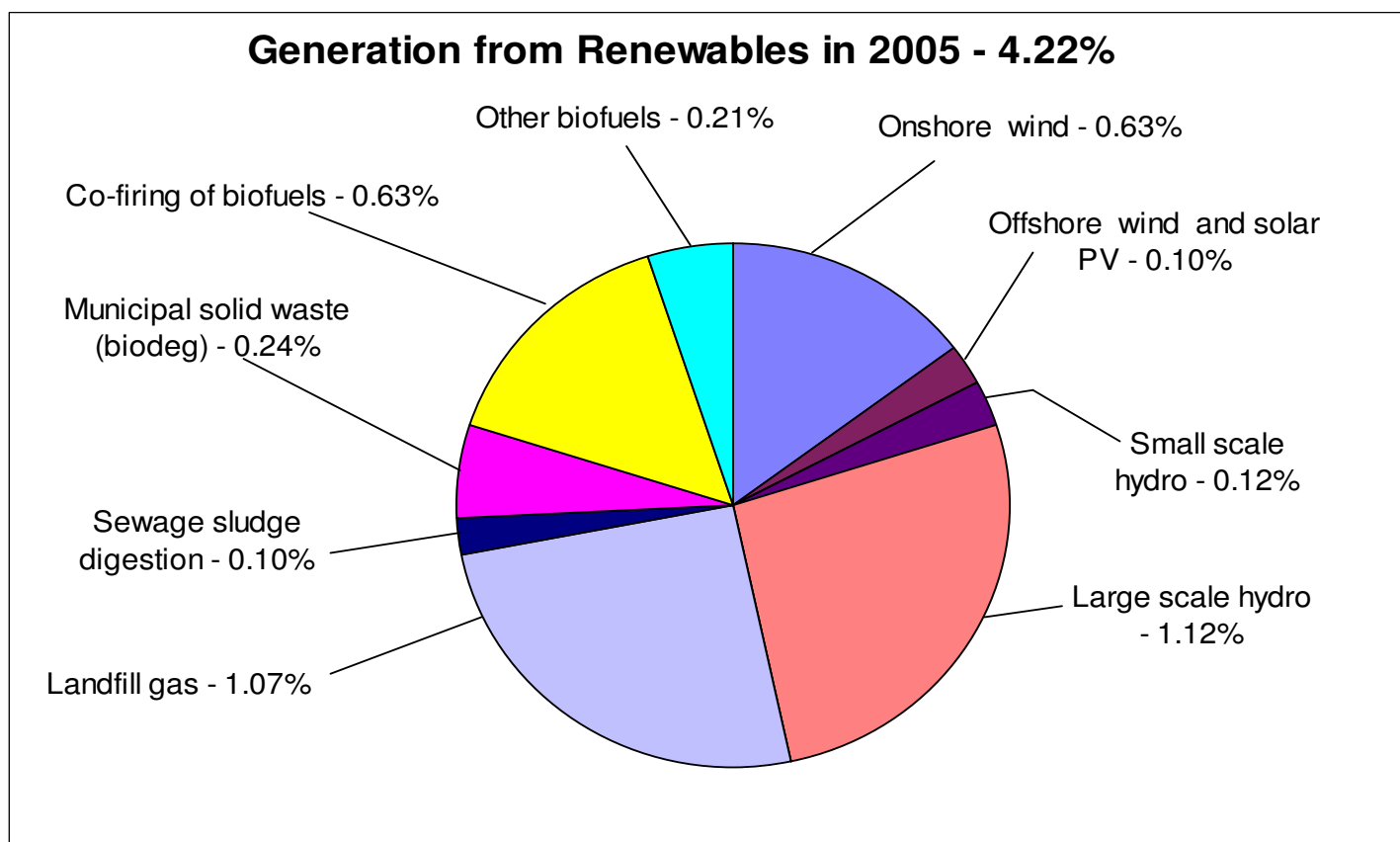
- **Carbon** – to put ourselves on a path to cut the UK's carbon dioxide emissions (the main contributor to global warming) by some 60% by about 2050 with real progress by 2020
- **Security of supply** – to maintain the reliability of energy supplies
- **Competitive markets** – to promote competitive markets in the UK and beyond, helping to raise the rate of sustainable economic growth and to improve our productivity
- **Fuel poverty** – to ensure that every home is adequately and affordably heated

Not exclusive goals

Related activities

- UK Non-Food Crops Strategy
 - ongoing
- Waste Strategy Review
 - to report by end of 2006
- New Rural Development Programme for England.
 - Energy Crops Scheme

Generation of Electricity from Renewable Sources



2006 Energy Review

Key renewables proposals:

- Extending Renewables Obligation levels up to 20% and RTFO beyond 2010
- Consulting on banding the RO.
- Co-firing: (i) Removing the caps on co-firing of energy crops, and (ii) assuming banding is introduced, reducing the number of ROCs it receives.
- Planning – “Merton” approach
- Buildings – Revised Regs; Sustainable Homes; EU Directive
- Government Estate commitments

Energy Technology Institute

- Prospectus launched on 14 September
- £1bn for energy R&D over 10 years. HMG has committed <£500m
- 50:50 Government t/industry partnership over at least 10 years
4 partners in place – E.ON, EDF, BP and Shell. A new institute, fully operational early 2008.

Objective:

‘to accelerate the development of secure, reliable and cost-effective low-carbon energy technologies that can be deployed commercially as quickly as possible’

2006 Energy Review

Key renewables proposals:

- Extending Renewables Obligation levels up to 20%
- Consulting on banding the RO.
- Co-firing: (i) Removing the caps on co-firing of energy crops from 1 April 2007, and (ii) assuming banding is introduced, reducing the number of ROCs it receives.
- Planning – “Merton” approach
- Buildings – Revised Regs; Sustainable Homes; EU Directive on Building Performance
- Government Estate commitments

International drivers

- International problems, international answers
 - EU ETS
- Emerging roadmap for energy efficiency
- New push on distributed generation
- Renewables – including heating and cooling

Biomass Task Force Report

Key conclusions:

Significant barriers but very good opportunities for biomass. In particular:

- greater emphasis needed on renewable heat
- ‘ignorance’ of biomass is a major barrier
- Government needs to lead by example
- Under-developed supply chains
- Unrealised opportunity for waste for energy – institutional/regulatory barriers

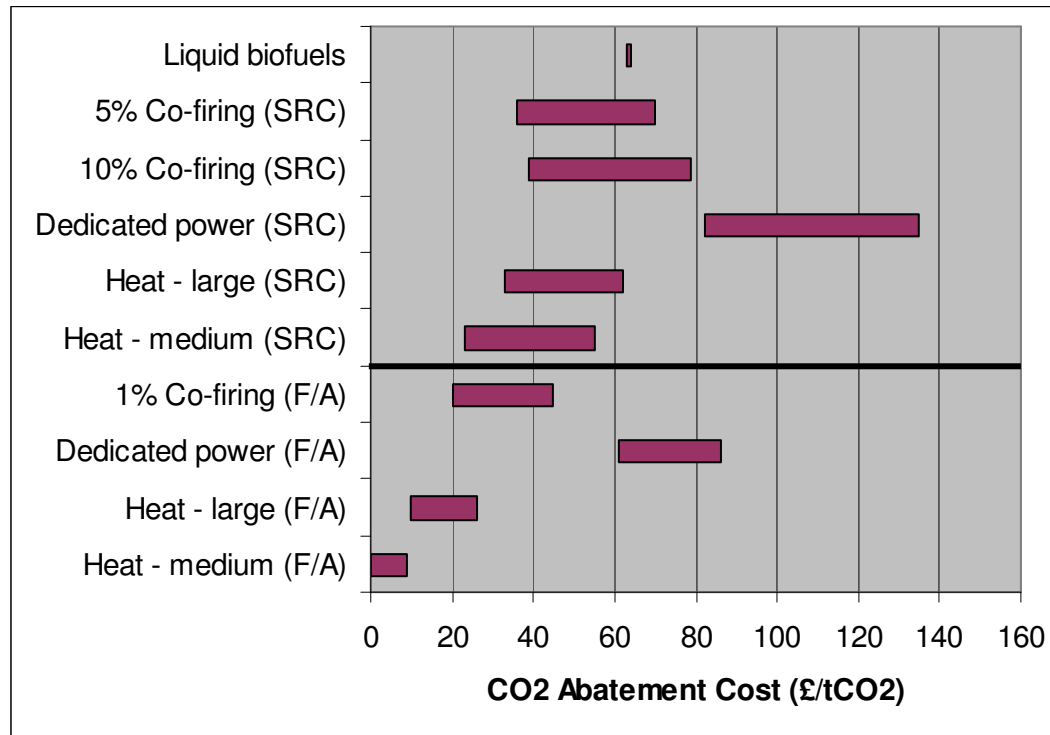
Already a lot of support for biomass

- Capital grants, VAT reduction, Enhanced Capital Allowances and infrastructure schemes
- Energy Crops scheme & Woodland grant schemes.
- Biomass Energy Centre
- Climate Change Levy exemption for renewables / GQ-CHP
- R,D&D - industry and academe

UK Biomass Strategy

- Aims to ensure that we make best use of (limited) biomass resource and will include :
 - forestry, waste wood, straw, miscanthus, SRC, MSW, animal slurries, sewage sludge, poultry litter, etc.
 - Heat, electricity, CHP, transport biofuels & biogas – for applications in industry, commerce, public sector, community and domestic premises.
- Direct working with Scotland, Wales and Northern Ireland and English Regions
- Commitment to publish by April 2007

Biomass Carbon Savings



Summary

- Biomass and biofuels can make a significant contribution to our renewable energy and climate change objectives and to security and diversity of energy supplies.
- Government wants to work with stakeholders to achieve this