

Information sheet 6

Co-firing

'Co-firing' describes the simultaneous combustion of a mixture of fuel types in the same power station or boiler. Co-firing generally involves reducing the consumption of fossil fuels by substituting a proportion of the conventional fuel stream (e.g. coal) with biomass. Provided the biomass comes from a sustainable source this process can significantly reduce carbon emissions. Co-firing generally involves using solid biomass such as wood, sewage, sludge, oil cakes and energy crops mixed with coal, although it is possible to use vegetable oils with conventional heavy fuel oil. In the UK 16 major coal power plants are co-firing with biomass. By doing so they earn 'Renewables Obligation Certificates' which are tradable items with a market value.

General information – some websites contain details of case studies

- Kema: Consulting services - www.kema.com/consulting_services/power_generation/coal_firing/co_firing/
- Renewable Energy Association: General information on biomass and biofuel - www.r-e-a.net
- European Renewable Energy Centres Agency: Integrated European Network for Biomass Co-firing – www.eurec.be/content/view/58/47/

Co-firing projects

- Bical: Production systems for pellets for co-firing – www.bical.net/bical-fuel-pellets.htm

Regulations and legislation

- Department of Transport: Renewable Transport Fuel Obligation (RTFO)- www.dft.gov.uk/pgr/roads/environment/rtfo/

Facts and figures

- Department of Energy and Climate Change: Digest of UK Energy Statistics - www.decc.gov.uk/en/content/cms/statistics/publications/dukes/dukes.aspx

Publications

- IEA Bioenergy Task 32. Publications on biomass combustion and co-firing - www.ieabcc.nl
- Department for Trade and Industry: Co-firing Review - www.berr.gov.uk/files/file34449.pdf
- BERR: Co-firing of Biomass at UK Power Plant - www.berr.gov.uk/files/file20084.pdf
- BERR: Evaluating the sustainability of co-firing in the UK - www.berr.gov.uk/files/file34448.pdf