European Sustainable Energy Policy Seminar
INFORSE- EUFORES-EREF

March 29th 2006, Brussels

Biomass Actions – A Personal View of Biomass Development in the UK

Pete West, Sustainable Energy Projects Manager
Severn Wye Energy Agency, Gloucestershire, U.K.

Member of the Management Board INFORSE- Europe
• Our organisation – an independent not-for-profit local Energy Agency established in 1997 under the EU SAVE II programme.

• 12 full time staff covering a mainly rural area in South West England with a population of approximately 500,000

• We actively promote renewable energy and energy efficiency, part funded by Local Authorities, the Energy Saving Trust (UK Government) and project based funding.

• We are currently partners in 5 international projects funded through Intelligent Energy Europe.
Topics to be covered.....

1. Briefly- climate change and the global need to move to a lower carbon future

2. The current status of biomass development in the UK

3. Case studies to illustrate barriers to biomass

4. Positive changes ahead?
North Pole summer ice coverage is shrinking by 9% per decade.
European heat-wave 2003 - estimation of return periods

Swiss Temperature Series 1864-2003 (mean of 4 stations)

More elaborate analysis shows it likely that most of the risk of the event due to increase in greenhouse gases - also that by 2050, likely to be average event and by 2100 a cool event (Stott et al 2004, Nature 432 610-614).
Current wood fuel usage in the UK

• 1% of UK heat requirements are supplied through wood fuel and energy crops

• 0.5% of UK electricity in 2004 was supplied from wood fuel and energy crops. 28 coal-fired power stations have been approved to co-fire biomass and claim Renewables Obligation Certificates (ROCs) worth approx £45 per MWh of electricity generated.

• There were 13 dedicated smaller scale biomass power stations in the UK in 2004, total generating capacity 158MW
Case Study – co firing biomass in coal fired power stations

Policy objectives:

Contribution towards target to produce 10% of UK electricity from renewable energy by 2010

Provide an end user to encourage farmers to grow energy crops.

A lower cost short term option than construction of dedicated new smaller biomass power stations.

Helps reduce CO2 emissions from coal fired power stations

To qualify for ROC’s

Up to March 2009- any biomass

Up to March 2011 – must include 50% energy crops such as willow

Up to March 2016 must be 75% energy crops

After March 2006 – no ROC’s for co-firing biomass
Biomass Co-firing in practice:

Large volumes of the biomass for co-firing is imported into the UK, eg olive oil and palm oil waste products.

The most profitable biomass co-firing generators have “partnered” with a specialist technology and biomass providers who:

1. Have extensive experience with the design, operation, and maintenance of coal fired power stations

2. Provide currency hedging for fixed price long term biomass agreements

3. Experienced in international logistics operations

RWE npower indicated in 2004 an interest in purchasing biomass from locally grown willow coppice to supply Didcot power station.

3000 hectares of energy crops would be required. By February 2006 only 50 hectares had been planted.
Barriers

- capital cost (varied capital grants)
- lack of financial support for renewable heat
- fuel supply
- planning consent – neighbours object

Example:

“More cash has had to be pumped into a pioneering scheme to heat a village with wood fuel after an oversight by council officers and contractors handling the project.

The plan to replace traditional heating with a boiler using locally-sourced wood at Llandwdddyn near Lake Vyrnwy in Powys was originally costed at £312,000.

But completing the heating network of 19 homes and the village school will now cost an extra £50,000 after an oversight about who owned land where heating pipes were due to be laid.”
Wood fuel developments in Nottinghamshire

On the more positive side, Local Authorities are using biomass in schools.

ReNU Ltd, a local renewable energy company, active in the promotion of biomass.

ReNU Ltd have worked successfully in partnership with Nottinghamshire County Council to supply wood fuel to many of the Council’s Schools. ReNU’s main focus is to develop a woodheat infrastructure for the East Midlands and to support woodheat installations from fuel production to delivery and installation.

This event will be a unique opportunity to learn more about Nottinghamshire’s expertise whilst also experiencing the practical side to ReNU’s operations, including a tour of the new pellet press installation in Newark, the chipping facility in Thoresby and a visit to the wood heat installation at Garibaldi School.

Developing locally produced wood fuel is of great importance to the East Midlands and would benefit many installations in the region. This event would give you a great opportunity to learn from our experiences.

We look forward to seeing you on the 21st March.
Farmers are starting to grow energy crops such as miscanthus - Pembrokeshire Bioenergy Ltd January 2005. Planting grants of £920/ hectare are available in England.
On the positive side……..

Bio-energy Infrastructure Scheme £3.5 million over 3 years to set up wood fuel supply producer groups and co-operatives

March 2006 Budget – UK chancellor approves £80m over 3 years to provide up to 50% capital grants for renewable energy in community buildings such as schools, plus grants for householders. The renewables industry was pleasantly surprised – only £30 m was expected

October 2005 After 12 months preparation the Biomass Task force issued a report with 42 recommendations for measures required to develop the biomass sector in the UK. The Government response and Action Plan is expected in April 2006
In conclusion:

Climate change is the most serious challenge facing the modern world – failure to reduce CO2 emissions in not an option.

The UK uses less biomass energy per capita than nearly all other EU-25 countries.

Over-reliance on market forces is failing to deliver an indigenous biomass industry.

The UK is starting to develop more and better policies to support the biomass sector.
Thank you for your attention

pete@swea.co.uk

+ 44 (0) 1594 545366