



## Who am I ?

Mike Hadlow - Building Services Engineer.

## Currently

Head of Facilities for Institute of Arable Crops Research (IACR)  
based on their main campus at Rothamsted in Hertfordshire UK.

## Recently

Energy Efficiency Engineer for the UK's Biotechnology & Biological  
Sciences Research Council (BBSRC) for a number of years.



European View = European Union (EU) View

Information on the EU has been obtained from the EU website

<http://europa.eu.int>

In the EU the European Commission is responsible for setting policy.

It does this through various Directorates-General.

The areas of Energy & Recycling feature in the remits of three of these:

Directorate General for the Environment - (Margot Wallström),

Directorate-General for Energy and Transport - (Loyola de Palacio),

Directorate-General for Enterprise and Information Society - (Erkki Liikenen).



The European union recognises the importance of Energy Efficiency & Recycling and is working to improve the environmental performance of the Member States.

“Saving energy has been a key objective of the energy policies of both the European Union and the Member States since the first oil crisis in 1973.”

In the early days the emphasis was on security of supply – save it or run out!

Over the years this emphasis has changed to include protection of the environment through development of renewables and reduction of emissions.



## European Union - Energy Policy Targets:

Meeting Kyoto Objectives.

8% CO<sub>2</sub> reduction between 2008 and 2012 compared to 1990 Level.

Doubling the Share of Renewable Energy Sources.

From 6% to 12% final energy EUROSTAT convention.

Improving Energy Efficiency.

Increase by 18% until 2010 compared to 1995.

Maintaining Security of Supply.



## Annual Energy Review

SAVE – Specific Actions for Vigorous Energy Efficiency.

“A Community-wide programme aimed at improving energy efficiency and thereby reducing the environmental impact of energy use.....”

ALTENER II (1998 TO 2002)

Its objectives can be summarised as follows:

“To implement and compliment Community measures designed to develop the renewable energy resource potential.”

“To encourage the harmonisation of products and equipment in the renewable energy market”.



Recycling Forum (1999 – 2000)

To look into ways of supporting and developing recycling with the Community.

Conservation of resources including minerals & energy...

Reduced landfill and reduced emissions to air, land and water.

Virtual European Recycling forum:

To help bring recyclers and users of recycled materials together.



*Energy Policy - Formulation*

How does the EU and national policy translate into local policy for individual organisations?

Should a local policy be detailed and comprehensive or simple and to the point?

Should percentage saving targets be applied across the board?

Despite organisations seeking to improve their 'green' credentials, cash is still a major driver!



*Energy Policy - Formulation*

Biotechnology and Biological Sciences Research Council's current Energy Efficiency Policy.

There was considerable debate as to what should or should not be included.

The statement of policy objective that resulted is deliberately short, simple and 'to the point':

“To reduce the BBSRC's energy bill to the lowest practical level commensurate with the needs of the research programme”.





The policy objective reflects two important points:

1. Although BBSRC is committed to 'green' issues, cost saving is the main driver of its Energy Efficiency activities.
2. BBSRC's Energy Efficiency activities should avoid negative impact on the core business of the organisation.



*Energy Policy - Support*

How is BBSRC's policy applied & supported in practice?

BBSRC supports its policy through the BBSRC Energy Office.

Activities of the Energy Office include co-ordination and promotion of energy efficiency and 'green' initiatives and the provision financial support for energy efficiency measures taken at research sites within the BBSRC group.

It also collates a group-wide energy cost and consumption database, which is used to monitor performance against targets, provide an annual report to senior management and facilitate 'Energy Trading'.



## *Energy Policy in Practice*

As Head of Facilities of a BBSRC supported institution, I am involved in putting the policy into practice. IACR have considered of a number of efficiency measures concerning Controlled Environments. These have included: energy efficient lighting units, siting ballast units remote from the conditioned space, operation of CE daytime cycles during off peak electricity times, use of Combined Heat and Power with absorption chilling, use of roller benching to make more efficient use of space, electronic control of electric motors, recycling heat by use of heat pumps/energy packs.



As with many other organisations, electricity represents our greatest energy cost and so we tend to favour measures that save electricity.