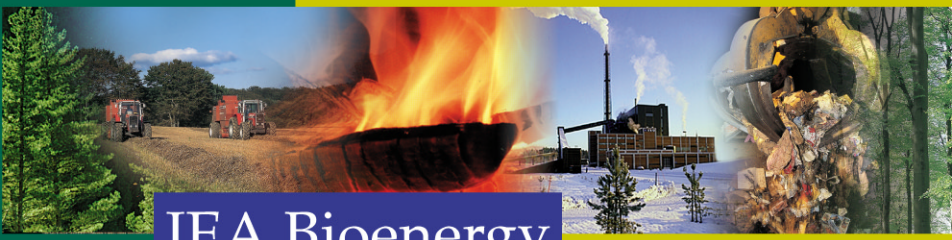


IEA Bioenergy

An international collaboration in Bioenergy

IEA Bioenergy aims to accelerate the use of environmentally sound and cost-competitive bioenergy on a sustainable basis, and thereby achieve a substantial contribution to future energy demands.

IEA Bioenergy

Background

The International Energy Agency (IEA) was founded in November 1974 to implement an international energy programme. Membership consists of 25 of the 29 OECD member countries. An important activity within IEA is a programme to facilitate co-operation to develop new and improved energy technologies and introduce them into the market. Activities are set up under Implementing Agreements which provide the legal mechanism for establishing the commitments of participants and the management structure to guide the activity.

Implementing Agreements

This brochure provides information on the Implementing Agreement for bioenergy which was set up in 1978 by the IEA to improve international cooperation and information exchange between national bioenergy RD&D programmes.

Implementing Agreements are independent bodies operating in a framework provided by the IEA, and hence take full responsibility for their work programmes and publications. There are 40 currently active Implementing Agreements encompassing activities relating to renewable energy, efficient energy end-use, fusion power, fossil fuels and information dissemination. For more information on the background and structure of Implementing Agreements and the rights and benefits of participants, please refer to the booklet produced by IEA Headquarters titled 'Energy Technology and R&D'.

Municipal solid waste is a valuable biomass resource. The Tyseley grate fired, mass burn energy from waste plant in Birmingham, UK is fed with 350,000 tons per year.

Members of the IEA Bioenergy Executive Committee on a study tour of the Amergas Gasification Plant in the Netherlands.

Harvesting forest residues for wood fuel.

Goals

International collaboration can help worldwide progress in research, development, demonstration and deployment (RDD&D) of new and improved energy technologies to exploit bioenergy resources. IEA Bioenergy offers opportunities to coordinate the work of national programmes across the wide range of bioenergy technologies. Bioenergy resources such as woody crops, biomass residues and wastes already provide about 14% of the world's primary energy supplies. For the future, bioenergy offers cost-effective and sustainable opportunities that have the potential to meet up to 50% of world energy demands during the next century and at the same time meet the requirement of reducing carbon emissions from fossil fuels.

Participation in IEA Bioenergy

As of January 2001, nineteen countries or organisations, designated by their governments, take part in IEA Bioenergy: Australia, Austria, Belgium, Brazil, Canada, Croatia, Denmark, Finland, France, Italy, Japan, The Netherlands, New Zealand, Norway, Sweden, Switzerland, United Kingdom, USA and the European Commission.

Harvesting a sustainable resource - short rotation poplar in USA.

Benefits of IEA Bioenergy

In IEA Bioenergy, national experts from research, government and industry work together with experts from other member countries. All resources are supplied by the participants. These resources are provided in two main ways:

- **Cost-sharing**, in which participants contribute to a common fund for conducting a research project, for information exchange or to fund Task administration, and
- **Task-sharing**, in which participants devote specified resources and personnel to conduct an agreed work programme.

IEA Bioenergy has both cost sharing and task sharing components. The collaboration offers many benefits at both the policy and technical level including the ability to:

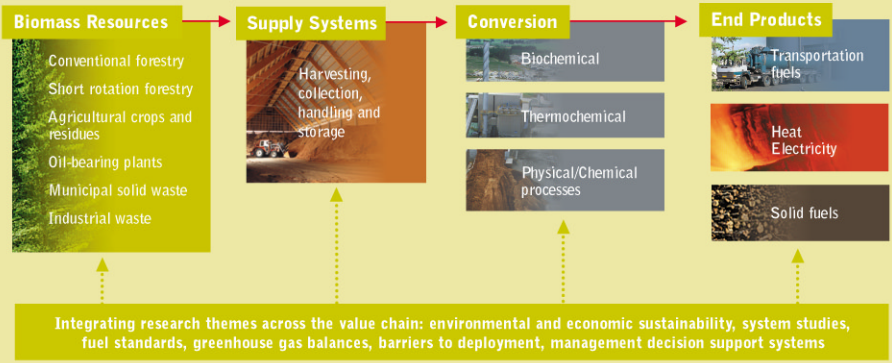
- Strengthen national R&D capabilities
  - Share research costs
    - Pool technical resources and network researchers
      - Avoid duplication and hedge bets on research paths
      - Standardise methodologies
    - Harmonise technical standards
  - Enhance the quality of R&D outputs
- Disseminate information on technology capabilities
- Accelerate the deployment of new technologies
- Build a common understanding of the technical basis of issues
- Investigate barriers to implementation
- Contribute to energy policy development

The Battelle/FERCO wood gasification plant. Demonstration and deployment of technologies are important goals for IEA Bioenergy.

Agricultural crops are an important bioenergy opportunity. Rapeseed oil can provide a plant-based fuel for future energy supplies.

Researchers, policy-makers and industry can all capitalise on these benefits.

Scope of Bioenergy RD&D



The 2001-2003 Research Programme

Work in IEA Bioenergy is carried out through a series of Tasks, each having a defined work programme. Each participating country pays a modest financial contribution towards administrative requirements, shares the costs of managing the Tasks and provides in-kind contributions to fund participation of national personnel in the Tasks.

Each Task is led by one of the participating countries (Operating Agent, OA) with technical effort co-ordinated by a Task Leader (TL). The work is directed by an Executive Committee. For the period 2001-2003, the work is structured into twelve Tasks. Most Tasks have a common duration of three years. The ongoing Tasks which have been agreed to date, with the relevant contact details are as follows:

Task 28: Solid Biomass Fuels Standardisation & Classification.
OA: The European Commission.
TL: Andy Limbrick; Email: a.limbrick@dial.pipex.com

Task 29: Socio-economic Aspects of Bioenergy Systems.
OA: Croatia.
TL: Julije Domac; Email: jdomac@eihp.hr

Task 30: Short Rotation Crops for Bioenergy Systems.
OA: Sweden.
TL: Theo Verwijst; Email: theo.verwijst@lto.slu.se

Task 31: Conventional Forestry Systems for Sustainable Production of Bioenergy.
OA: Canada.
TL: Jim Richardson; Email: jrichardson@on.aibn.com

Task 32: Biomass Combustion & Co-firing.
OA: The Netherlands.
TL: Sjaak van Loo; Email: s.vanloo@mep.tno.nl

Task 33: Thermal Gasification of Biomass.
OA: USA.
TL: Suresh P. Babu; Email: suresh.babu@gastechnology.org

Task 34: Pyrolysis of Biomass.
OA: The European Commission.
TL: Tony Bridgwater; Email: a.v.bridgwater@aston.ac.uk

Task 35: Techno-economic Assessments for Bioenergy Applications.
OA: Finland.
TL: Yrjö Solantausta; Email: yrjo.solantausta@vtt.fi

Task 36: Energy from Integrated Solid Waste Management Systems.
OA: United Kingdom.
TL: Niranjan Patel; Email: niranjan.patel@aeat.co.uk

Task 37: Energy from Biogas & Landfill Gas.
OA: Switzerland.
TL: Arthur Wellinger; Email: arthur.wellinger@novaenergie.ch

Task 38: Greenhouse Gas Balances of Biomass & Bioenergy Systems.
OA: Austria.
TL: Bernhard Schlamadinger;
Email: bernhard.schlamadinger@joanneum.ac.at

Task 39: Liquid Biofuels.
OA: USA.
TL: Don Stevens; Email: don.stevens@pnl.gov

Further Tasks may commence during the 2001-2003 period.

IEA Bioenergy

How to find out more

IEA Bioenergy is keen to promote its work programmes within participating countries and to encourage increasing involvement, especially of industrial partners. All OECD countries are eligible to participate fully. It also wishes to encourage further interest in its work from non-participating countries. Recently the IEA Governing Board has decided that the Implementing Agreements may also be open for non-member countries. If you are interested in finding out more about IEA Bioenergy, please contact the Executive Committee Secretary or visit the IEA Bioenergy website.

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