

# Biomass Taskforce



Issue 1

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## **Biomass Taskforce Established**

In 1993 the Energy Research and Development Corporation, which manages the Federal Government's investment in energy innovation, initiated and managed a study 'Biomass in the Energy Cycle'. The study, funded by nine Federal and State organisations, examined prevailing energy markets, analysed biomass resource supplies and energy conversion technologies, and through a series of case studies assessed potential energy systems based on biomass. The study identified a number of projects which would develop and promote a biomass energy industry in Australia.

The final report included a Strategic Plan recommending direction in:

- Industry and Market Development
- Liquid Fuels from Biomass
- Heat and Electricity from Biomass.

The outcome of these recommendations is the formation of the Biomass Taskforce by the Energy Research and Development Corporation, Environment Australia, the Grains Research and Development Corporation, and the Rural Industries Research and Development Corporation (representing the Joint Venture Agroforestry Program with the Land and Water Resources Research and Development Corporation and the Forest and Wood Products Research and Development Corporation). These organisations were funding members of the 'Biomass in the Energy Cycle' study.

The Taskforce aims to promote the development of biomass as a sustainable energy resource by: identifying and facilitating project opportunities; creating a forum for the industry; and gathering and disseminating information. The scope of the Taskforce includes all aspects of biomass, including energy from municipal, agricultural, forestry and commercial wastes and agroforestry and energy crops.

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## **Appointment of Biomass Taskforce Manager**

Dr Stephen Schuck has been appointed as manager of the Biomass Taskforce. In this role he will provide the secretariat function of the Taskforce and develop and implement a strategic plan to realise opportunities for biomass in Australia. He will also facilitate and act as a broker for the development of jointly funded biomass projects, assess the IEA Implementing Agreement on Bioenergy with a view to Australian participation, and maintain and disseminate information about biomass and industry developments.

Steve has set up in a Sydney office. He is keen to establish and develop contacts throughout the industry. He can be contacted by:

Mail: 7 Grassmere Road, Killara, NSW 2071  
Phone: 02-9416-9246

Fax: 02-9416-9246  
 Home phone: 02-9416-7575  
 Mobile phone: 019-981-179  
 Email: Steve.Schuck@bigpond.com

Steve's background lies mainly in the electricity supply industry, where until 1996 he was Pacific Power's renewable energy manager. He has also participated on the Federal Government's Expert Group on Renewable Energy Technologies (EGRET) which provided input into the Sustainable Energy white paper process.

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## **IEA Bioenergy**

IEA Bioenergy is an international collaborative agreement. It was set up in 1978 by the International Energy Agency (IEA) to improve international co-operation and information exchange between national bioenergy (Research, Development & Demonstration – R,D&D) programs. IEA Bioenergy aims to realise the use of environmentally sound and cost-competitive bioenergy on a sustainable basis, to provide a substantial contribution to meeting future energy demands.

### **Collaborative opportunities in bioenergy**

In IEA Bioenergy, national experts from research, government and industry work together with experts from other member countries. This co-operation offers many benefits:

*For research* - to exchange information on recent developments in R&D, through meetings or state-of-the-art seminars; to give opportunities for collaborative R&D;

*For industry* - to be informed of new projects; to work together to develop handbooks or models; to offer early participation of industrial partners in R,D and D work;

*For policymakers and decisionmakers* - to gain an international perspective on progress in bioenergy; to compile guidelines and standards.

Work in IEA Bioenergy is carried out through a series of Tasks, each having a defined work program. Each Task is led by an Operating Agent, with technical effort co-ordinated by Activity Leaders. The work is directed by an Executive Committee, supported by specialist Technical Advisory Committees. Each participating country pays a modest contribution towards the organisational requirements, and provides in-kind contributions to fund participation of national personnel.

There are currently four Tasks (Tasks XII to XV) which are operational for three years between 1995-97:

**Task XII:** Biomass production, harvesting and supply aims to design and develop cost-effective and environmentally sound biomass production, harvesting and supply systems for energy recovery. The work is carried out in four areas:

- Conventional forestry, including forest management and harvesting;
- Short rotation forestry, including production systems, pests, stock improvement and characterisation;
- Agricultural energy crops, which include liquid biofuels and lignocellulosic solid fuels;
- Interfacing and systems studies, which address feedstock preparation and quality, environmental issues and systems studies.

**Task XIII:** Biomass utilisation aims to improve technologies for efficiently producing energy and chemicals from wood and other biomass feedstocks. There are three main areas of work:

- Biomass power and heat production, both from combustion and from thermal gasification;
- Liquid fuels and related products, investigating pyrolysis and biotechnology conversion options;
- Cross-cutting work in technoeconomic analysis and integrated bioenergy systems work.

**Task XIV:** Energy recovery from municipal solid waste (MSW) aims to advance the development and deployment of energy recovery from MSW. The four areas of work are:

- Thermal conversion of MSW and refuse-derived fuel, including combustion and advanced conversion technologies, especially gasification;
- Landfill gas;
- Anaerobic digestion of MSW;
- energy recovery.

**Task XV:** Greenhouse gas balances of bioenergy systems aims to investigate processes involved in the use of bioenergy systems on a full fuel cycle basis to establish overall greenhouse gas balances. The work will compile existing data of greenhouse gas emissions from various biomass production processes, establish a common analytical framework for assessment of greenhouse gas balances, and derive recommendations to assist in the selection of appropriate national strategies for greenhouse gas mitigation.

IEA Bioenergy is keen to promote its work programs within participating countries and to encourage increasing involvement, especially of industrial partners.

As of January 1996, sixteen countries or organisations, designated by their governments, were taking part in IEA Bioenergy: Austria, Belgium, Canada, Denmark, Finland, France, Italy, Japan, the Netherlands, New Zealand, Norway, Sweden, Switzerland, the United Kingdom, the USA and the European Union.

The Biomass Taskforce will be investigating the merits of participating in the IEA Bioenergy program, and if there is sufficient interest, facilitating and convening a local consortium for participation.

If you are interested in finding out more about Australia participating in IEA Bioenergy, please contact Stephen Schuck, who is identifying local interest.

### **IEA Bioenergy Meeting to be held in Canberra**

The IEA Bioenergy Task XII End-of-Task meeting and study tour will be held in Canberra from March 17-20, 1998. This meeting is expected to attract about 40 overseas delegates, including the Executive Committee Chairman of the IEA Bioenergy Implementing Agreement.

The meeting is intended primarily as a forum for presentation and discussion of accomplishment in biomass production R&D under Task XII during the period 1995 to 1997. The meeting will also include overviews of accomplishments in other Tasks of the Agreement during the same period, and an outline and discussion of plans for 1998 – 2000.

It is anticipated that if a national consortium is formed to participate in IEA Bioenergy, the formalities will be completed at that time.

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### **Biomass Symposium**

A one day symposium on biomass energy will be held at the Forestry House Conference Centre in Canberra on 21st October 1997. The objective of this symposium is to bring together industry and government representatives with an interest in all aspects of biomass and biomass energy. The morning session will provide an update on opportunities and the state of the industry, with presentations by project developers and leading researchers. Time at the afternoon session will be set aside to gauge interest in participating in other Biomass Taskforce activities, including the move towards participating in the IEA Bioenergy program.

Proceedings of the symposium will be issued. A nominal registration \$85 fee will be levied to cover costs, issue of the proceedings and future communication costs.

Details of the symposium and registration details are contained with this newsletter.

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### **Net Addresses**

The Internet provides a valuable source of information on biomass energy. Below are some Internet addresses which may be of interest:

IEA Bioenergy

<http://www.abdn.ac.uk/ieabioenergy>

NSW Sustainable Energy Development Authority

<http://www.seda.gov.au>

National Renewable Energy Laboratory (Biomass Resource Information Clearing House)

<http://rredc.nrel.gov/biomass/>

Biomass Energy Alliance

<http://www.biomass.org>

National Bioenergy Industries Association (USA)

<http://www.crest.org/renewables/nbia>

University of Toronto

<http://www.utoronto.ca/forest/iea/ieatsk12.htm>

Office of Scientific and Technical Information – Biomass Research Titles Listings

<http://www.doe.gov/ber/berhome.html>

DPIE

<http://www.netenergy.dpie.gov.au/info.html#biomass>

Greenhouse Challenge

<http://www.dpie.gov.au/resources.energy/environment/greenhouse/challenge>

Forestry

[http://www.dpie.gov.au/dpie/sites\\_for.html](http://www.dpie.gov.au/dpie/sites_for.html)

Electric Power Research Institute Journal article

[http://www.epri.com/EPRI\\_Journal/may\\_jun96/biomass.html](http://www.epri.com/EPRI_Journal/may_jun96/biomass.html)

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### **Interesting fact**

Biomass energy is the second most prevalent renewable energy source in the USA, only trailing hydro-electricity. The USA electricity generating capacity from biomass accounts for



## Biomass Taskforce Symposium

21 October, 1997, Canberra

Program and Registration

This one day symposium, organised by the Australian Biomass Taskforce will provide valuable information on biomass resources, energy conversion and industry programs from leading speakers. An afternoon forum will examine key issues for biomass industry development in Australia.

*Venue:* CSIRO Forestry House Conference Centre  
Wilf Crane Crescent, off Banks Street,  
Yarralumla (Canberra), ACT.

*Who Should Attend:* The symposium will be of interest to a wide spectrum of private sector and government organisations wanting to know more about opportunities and issues for using agricultural and forestry products and residues and organic wastes as a feedstock for sustainable energy production.

### *Program*

8:45 - 9:15	Registration
9:15 - 9:30	Introduction to Proceedings - Dr Stephen Schuck (Biomass Taskforce)
9:30 - 10:00	Forestry Resources - Dr Paul Fung (CSIRO Forestry and Forest Products)
10:00 - 10:30	Bagasse and the Sugar Industry - Dr Terry Dixon (Sugar Research Institute)
10:30 - 11:00	Grains as a Resource - Grains Research and Development Corp.
11:00 - 11:15	Morning Tea
11:15 - 11:45	The Enersludge Process - Trevor Bridle (Environmental Solutions International)
11:45 - 12:15	A Biomass Gasifier - Dr Stephen Joseph (EDL/BEST)
12:15 - 13:00	Lunch
13:00 - 13:30	IEA Bioenergy - What is it and should Australia participate? (Dr S Schuck)
13:30 - 13:45	The Australian Biomass Taskforce
13:45 - 15:00	Forum - Industry Priorities and Issues for Australia - moderator Professor Ralph Sims (Massey University, NZ)
15:00 - 15:15	Afternoon Tea
15:15 - 16:30	Forum Continued

*Cost:* \$85 includes teas, lunch and proceedings.

*Further Information:* Dr Stephen Schuck Phone/fax: (02) 9416-9246  
Email: Steve.Schuck@bigpond.com

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**Registration** - Biomass Taskforce Symposium- 21 October 1997, Canberra

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or

Email: Steve.Schuck@bigpond.com

Name: .....

Position: ..... Organisation:.....

Mailing Address: .....

Phone: (...). ..... Fax: (...). ..... Email: .....

Cheque enclosed for \$85 to the Energy Research and Development Corporation, or  
Bankcard/Visa/Mastercard

Card Number:

Expiry Date: ...../..... In the name of: ..... Signature: .....