



Bioenergy Australia is an alliance of organisations
fostering biomass for energy and products

Newsletter

February 2008

Bioenergy Australia 2007 Conference

Bioenergy Australia's annual conference, held at the Gold Coast International Hotel, Surfers Paradise, Queensland 26–28 November, was a great success with over 240 delegates in attendance, including a 20-plus person trade delegation from Brazil. Professor Andre Faaij from the Copernicus Institute at the University of Utrecht, The Netherlands, leader of the International Energy Agency's Bioenergy Task on Sustainable International Bioenergy Trade gave the keynote address and was otherwise an active participant.

The Conference program had over 60 presentations covering policies and programs, projects and project development case studies and emerging opportunities on a wide range of topics including biomass resources and supply, liquid biofuels, biorefining, anaerobic digestion, pyrolysis bio-oil and bio-char, heat and power, and life cycle emissions and land use competition. A moderated panel discussion addressed the issue 'Will Peak Oil Lead to Peak Soil?'

The technical tour on 28 November visited the Condong Sugar Mill cogeneration power plant, a wood energy pellet production facility at Woodburn NSW, a multi-purpose plantation, which includes a bioenergy aspect, and a bio-char field trial being conducted by the NSW Department of Primary Industries.

The conference presentations have been consolidated on to a CD and is available for sale. A few sets of the conference Proceedings are also available to those who could not attend the conference. See below for details on how to purchase the CD and/or the Proceedings.

Bioenergy Australia 2007 Conference CD

The CD ROM from the Bioenergy Australia 2007 conference, held in Surfers Paradise, 26-27 November 2007 is now available for sale. The CD includes the conference program, speaker profiles, abstracts, delegate list, presentations and photos from the technical tour. The cost of the CD is \$88. Proceedings are also available at a cost of \$120. You can also purchase both the CD and Proceedings for \$150 (all purchases include GST and postage & handling). For further details and to place orders please contact Stephen Schuck, tel: (02) 9416 9246, email: sschuck@bigpond.net.au, or Hanna Ulkuniemi, Conference Action, Tel: (02) 9431 8635, email: hanna@conferenceaction.com.au.

Bioenergy Australia Membership Update

The Bioenergy Australia membership now includes 60 organisations. Recent new members are Connell Wagner; Demand Farming; and Pekabu Pty Ltd.

Bioenergy Australia wishes to further expand its membership and invites interested organisations to contact the Bioenergy Australia Manager, Dr Stephen Schuck on tel/fax (02) 9416 9246 or email: sschuck@bigpond.net.au if your organisation is interested in joining this government-industry bioenergy forum. Bioenergy Australia has a membership tier to cater for universities and for organisations with an annual turnover of less than \$2 million per annum.

Bioenergy Australia Algae Workshop 27 March Canberra

Bioenergy Australia will be holding a meeting on microalgae as a feedstock for bioenergy and bioproducts as part of its next day-long quarterly meeting, scheduled for 27 March in Canberra. If you are involved in algae research, development, demonstration or commercialisation, and wish to attend this by-invitation-only, free event, please contact Stephen Schuck, Bioenergy Australia Manager on Email: sschuck@bigpond.net.au Tel: (02) 9416 9246 for the details and for an invitation to attend. Bioenergy Australia Members would have already received notice of this meeting, which is one of Bioenergy Australia's planned activities and membership benefits.

Submissions to the Garnaut Climate Change Review

Professor Ross Garnaut has been engaged by the State and Territories, and subsequently by the incoming Labor Federal governments, to conduct a Review, akin to the UK Stern Review, into options for Australia for mitigating greenhouse gas emissions and climate change. A series of public forums have been held on selected topics, with Issues Papers based on the forums subsequently released for public comment.

On 10 December 2007, Professor Garnaut hosted a public forum on *Research and Development: Low Emissions Energy Technologies* in Brisbane. This forum sought to explore how innovation happens, and the role of government and the market in the development of low emission energy technologies. In particular, the forum focused on the rationale for the role of government, and sought to develop principles and appropriate policies for application to the innovation system in Australia. Steve Schuck, representing Bioenergy Australia, participated on a Panel within this Forum and at a linked working lunch.

The Garnaut Review Secretariat is now inviting interested parties to make submissions in response to *Issues Paper 4 - Research and Development: Low Emissions Energy Technologies*. This paper draws on the outcomes of the forum, stakeholder discussions, internal analysis, and commissioned reports. It aims to raise and explore issues, and seeks input on the key innovation market failures facing Australia's industries in the context of climate change. The paper is available for download from the Garnaut Review website at <http://www.garnautreview.org.au/CA25734E0016A131/pages/submissions-rd:-low-emissions-energy-technologies>. Submissions should be received by **11 April 2008**.

Other Issues papers in this series are:

- [Issues Paper 1 - Climate Change: Land use - Agriculture and forestry \(PDF, 137kb\)](#).
- [Issues Paper 2 - Financial Services for Managing Risk: Climate Change and Carbon Trading \(PDF, 100kb\)](#)
- [Forum 3: Climate Change: What is the science telling us? Is there a need for new emissions scenarios?](#) (Issues Paper soon to be released)
- Issues paper 5-Transport, planning and the built environment (Forum 19 February 2008 with Issues Paper to follow and submissions due four weeks from date of release.)

General submissions are open until Friday **29 February 2008** and may be submitted via Email: Write '*Submission*' in subject field of email, and send to contactus@garnautreview.org.au. or via Post to: Submissions, Garnaut Climate Change Review, Level 2, 1 Treasury Place, Melbourne VIC 3002.

For more information on how to make a submission please see the 'How to Make a Submission' page at <http://www.garnautreview.org.au/CA25734E0016A131/pages/submissions-how-to-make-a-submission>

Proposed Management of Diesel/Biodiesel Blends - Call for Submissions

The Australian Government has released a position paper on the preferred management approach to diesel/biodiesel blends to help provide certainty to consumers and industry. Prior to amendment of existing legislation of the *Fuel Standards Act 2000* the Government is seeking comment from all stakeholders. The Position Paper can be downloaded from:

<http://www.environment.gov.au/atmosphere/fuelquality/standards/biodiesel/index.html>

Alternatively, if you are interested in receiving a copy of the paper please contact:

Proposed Management of Diesel/Biodiesel Blends – Position Paper

Fuel and Used Oil Policy Section

Department of the Environment, Water, Heritage and the Arts

GPO Box 787

CANBERRA ACT 2601

(John Gorton Building, PARKES ACT 2600)

Submissions must be received at the above address or via fuel.quality@environment.gov.au by **COB Friday 14 March 2008**.

National Greenhouse and Energy Reporting System – Submissions requested

As the next stage in developing the National Greenhouse and Energy Reporting System, the Department of Climate Change has released for public comment the *National Greenhouse and Energy Reporting System, Regulations Policy Paper*. This may be downloaded from

<http://www.greenhouse.gov.au/reporting/regulations/pubs/ngerregs-policypaper.pdf> (421 kB).

The Policy Paper follows public consultation undertaken during October 2007 and aims to inform stakeholders, and seek feedback on approaches to the final Regulations.

Interested individuals and organisations are encouraged to submit their views on the proposals presented. Submissions to this paper are now being invited and should be lodged electronically via email, preferably in Microsoft Word or other text based formats. Written submissions should be emailed to the Department of Climate Change reporting@climatechange.gov.au by Wednesday, **27 February 2008**.

Labor Government Plans to Expand Renewable Energy Use to 20 Percent by 2020

Labor, in announcing its renewables policy, has promised to increase the proportion of renewables used to generate electricity in Australia from the existing 9.5% to 20% by 2020. This will be achieved by combining existing and proposed state and territory schemes with the Federal Mandatory Renewable Energy Target (MRET) scheme and increasing the MRET target from the current 9,500 GWh per annum to 45,000GWh thereby boosting Labor's commitment to a total of 60,000GWh

As emissions trading and carbon pricing starts to take hold and has had an effect on change and technology uptake a proposed phasing out of MRET targets from 2020 to 2030 is planned to take place.

Three New Funds for Renewable Energy

Under its renewable energy policy the Labor Government will provide funding for three new Funds. These will be partially funded by abolishing existing programs -the [Commercial Ready](#) program, the Low Emissions Technology Demonstration Fund scheme ([LET-DF](#)) and the vestigial reserves of the [Greenhouse Gas Abatement Program](#).

The funds are:

- Renewable Energy Fund: \$500 million.
- Energy Innovation Fund: \$150 million. \$50 million will go towards an Australian Solar Institute, \$50 million towards solar PV research and \$50 million to 'general clean energy research'
- Clean Business Fund: \$240 million. \$90 million for a Green Building Fund, \$75 million for grants up to \$500,000 to help small and medium sized manufacturers and \$75 million for a Climate Ready program to support development of "clean, green technologies".

Along with policies and funding for renewable energy technology the Labor Government will also provide funding for climate change initiatives including:

- \$60 million for a Climate Change Adaptation plan
- \$15 million for a clean energy export strategy and up to \$20 million for a Clean Energy Enterprise Connect Centre to assist small- and medium-sized companies become export-ready.
- Phasing out the sale of greenhouse-intensive electric hot water systems over 2010-12.

NSW Climate Change Fund

The NSW Government has established the Climate Change Fund which will provide \$340 million towards saving energy and water. Under the Green Business Program applications are invited for projects that will save water, energy and greenhouse gas emissions in business operations in NSW. There are two funding streams –market transformation and direct measures. See: <http://www.environment.nsw.gov.au/grants/ccfgbp.htm>

QUT Teams up with Syngenta on Biofuels

Queensland University of Technology has entered into an agreement with the world's largest agribusiness company, Syngenta, to develop technologies that will provide an economical, liquid biofuels for transportation. The multi-million dollar deal between QUT, qutbluebox, Syngenta and Farmacule Bioindustries, supported by the Queensland Government, that will see the establishment of the "Syngenta Centre for Sugarcane Biofuel Development" at QUT.

QUT's Professor James Dale, has pioneered groundbreaking genetic technology that has the ability to economically convert plant waste into valuable sugars, which can then be used to produce ethanol without compromising the sugar potential of the cane. As part of this project, he will now lead an international team of researchers to develop, to commercial scale, sugarcane that can yield cost-effective bioethanol from cellulose.

Syngenta has identified biofuels as a major business opportunity, making the company, which last year reported US\$8.1 billion sales, the global partner of choice for QUT in cellulosic ethanol development. While the research partnership is planned for three years initially, it is expected to lead to an expanded 10-year collaboration.

Source: QUT

Wood Waste Power Plant Proposed for WA

Babcock & Brown and National Power are proposing a 40MW power station in Western Australia that would be fuelled by plantation forestry waste. The plant proposed for Manjimup in south west Western Australia would consume about 380,000 tonnes per year of plantation waste and would deliver net CO₂e savings of 261,279 tonnes per year, if the offsetting of additional conventional generation is taken into account.

Connell Wagner have released a public environmental review on behalf of the joint venture. See: <http://www.connellwagner.com.au/cwagner/uploads/documents/PER.pdf>

WA Low Emissions Energy Development Fund

The Low Emissions Energy Development (LEED) Fund is part of the Western Australian state's plan to cut 2050 greenhouse gas emissions by 60% below 2000 levels. The Fund supports new technologies such as bioenergy, wind, wave, solar and clean coal technologies that will reduce energy related greenhouse gas emissions in the State. The first round of funding for WA's \$36.5 million Low Emissions Energy Development Fund was called on 9 November 2007 and has now closed. It is expected that \$8.5million will be available to suitable projects in 2008-09. Successful projects will be announced in the second quarter 2008. Further information is available from leed@dec.wa.gov.au or by phoning the Office of Climate Change on (08) 6364 6500.

New Forest and Wood Products Body Established

Forest and Wood Products Australia has commenced operations, taking over work from the Government-owned Forest and Wood Products Research and Development Corporation. The new company will continue the FWPRDC's research and development work, and will also be able to undertake marketing and promotion on behalf of Australia's forest industries. The company will be funded through industry levies and matching Commonwealth payments for research and development.

CBH Group Secures Ten Year Grain Supply to Primary Energy's Kwinana Biofuel Plant

Grain Pool Ltd (grain marketing arm of CBH Group) and Primary Energy have signed a ten year agreement which will see the production of over 160 million litres per year of ethanol for blending with fuels distributed by BP. Over 100,000 tonnes of fertiliser and other protein based co-products will also be produced for domestic and export use. Production will commence during the 2008-9 harvest at Primary Energy's biofuel facility at Kwinana, WA. The agreement will benefit Western Australian growers, secure the long term viability of the Primary Energy ethanol facility at Kwinana and benefit the environment.

Source: CBH Group

Boiler Ash – Sawmill Reduces Water Use

The Victorian Myrtleford Sawmill operator Carter Holt Harvey (CHH) has adapted water treatment technology to achieve a 90 percent reduction in its on-site potable water consumption. The mill's boiler ash water recycling project, funded through the Smart Water Fund, reduced the amount of potable water used to cool hot ash waste from its boilers from 38 million litres a year to just 4 million litres.

Mallee Briquettes - A Step towards Bioenergy from Mallee

The Oil Mallee Company, OMC is working towards converting mallee biomass from eucalyptus oil production into fuel briquettes. They have been given a Commonwealth Grant and alongside briquette manufacturer "Kalannie Distillers" will work with mallee growers and eucalyptus oil producers to develop the process. Fuel briquettes are low ash, low pollution and carbon neutral renewable fuel and OMC are confident they can replicate this technology Australia wide. Funding was provided by the Department of Agriculture, Fisheries and Forestry Australia "New Industry Development Program".

Source OMC newsletter

Biofact

Land requirement for transportation fuels: In 2006 approximately 1.5 Mm³ ethanol was produced in Europe, with the raw materials accounting for approximately two percent of the total wheat and sugarbeet production of that year.

Biomass on the Internet

The Internet provides a valuable source of information on biomass and allied topics. Below are some Internet addresses to supplement the 1,600 odd addresses given in the previous 31 issues of the Bioenergy Australia newsletters. These lists are consolidated as electronic links on Bioenergy Australia's web page at <http://www.bioenergyaustralia.org>. These links are available within an Excel file to allow interested persons to download the file and work with them off-line.

Alasia New Clones (poplar SRC Italy)

<http://www.alasiafranco.it/newclones.asp?lingua=eng>

Algae bio-diesel potential

<http://www.angelnexus.com/getreport/1680d9e5b48a08911564e3205ab83e0f.pdf>

Aruna Biomass gasifiers (10-100 kWe)

<http://www.arunabiomass.com>

Baseline Technical and Economic Assessment of a Commercial Scale Fischer-Tropsch Liquids Facility Report, April 2007

<http://www.netl.doe.gov/energy-analyses/pubs/Baseline%20Technical%20and%20Economic%20Assessment%20of%20a%20Commercial%20S.pdf>

BEAM network (algae)

<http://www.scieng.murdoch.edu.au/centres/algae/BEAM-Net/BEAM.html>

Beginner's guide to Biogas

<http://www.adelaide.edu.au/biogas/>

Biochar (Cornell University)

http://www.css.cornell.edu/faculty/lehmann/biochar/Biochar_home.htm

Biochar (Eprida)

<http://www.eprida.com/present.php4>

Biochar and Terra Preta

<http://terrapreta.bioenergylists.org/>

Biodiesel

<http://www.ageratec.se/index.asp?lang=EN>

Biofpr Journal

<http://www.biofpr.com/view/0/journal.html>

Biomass Cooking Stoves List

<http://stoves.bioenergylists.org/en/taxonomy/term/720>

Biomass Fuel Gas Cooker

<http://www.wattpower.com/wpindex6.html>
Biomass Magazine
<http://www.biomassmagazine.com/>
Bioenergy wiki
<http://www.bioenergywiki.net>
BioSolar (bioplastic film for backing photovoltaic cells)
<http://www.biosolar.com>
BIVKIN technology
<http://www.ecn.nl/en/bkm/products-services/experimental-facilities/bivkin/>
Briquetting
http://www.briquetting.com/mas_holz.php
Carbon and Environment Daily
<http://www.cedaily.com.au>
Charcoal making
<http://www.grupohubner.com.br/bricarbras/unidade.html>
Chip Energy
<http://www.chipenergy.com>
Climate Change Research Strategy for Primary Industries (CCRSPI)
<http://lwa.gov.au/ccrspi>
Climate Strategies
<http://www.climate-strategies.org>
Crorey Biomass Gasifier
<http://www.croreyrenewable.com/index.html>
Crorey Alternative Fuels (video)
<http://www.croreyrenewable.com/index.html>
Energy Today
<http://www.energytoday.com.au>
Environmental and Energy Study Institute
<http://www.eesi.org>
Ethanol from Switchgrass article
<http://www.sciam.com/article.cfm?id=grass-makes-better-ethanol-than-corn>
EU biomass Action Plan (Dec 2005)
<http://www.bioenergie.de/downloads/BAP%207%20dec%202005.pdf>
Gas analyser (gasified biomass or coal)
http://www.gassensor.com.cn/html/En/57/63/96/2007-10-11/news_191.html
Gas treatment for biomass gasification (Dahlman filter technology)
<http://www.olgatechnology.com/>
Gasifier design on the Gengas Page
<http://www.gengas.nu/byggbes/index.shtml>
Global Bioenergy Partnership
<http://www.globalbioenergy.org>
Global Biofuels Center
<http://www.ifqcbiofuels.org/>
Global Biomass Network
<http://www.globalbiomassnetwork.com>
Green Star Products has (algae and biodiesel technologies)
<http://www.greenstarusa.com/index.html>
Haldor Topsoe Methanol production
<http://www.topsoe.com/site.nsf/vALLWEBDOCID/KVOO-5MQNTF?OpenDocument>
Hamech automated wood waste boilers (from Poland)
<http://info.hamech.pl/index.php?name=News&file=article&sid=63>
IEA Bioenergy Task 36 (Energy from Integrated Waste Management Systems) – new address
<http://www.ieabioenergytask36.org>
IEA Bioenergy Task 29 (Socio-Economics Drivers in Implementing Bioenergy Projects)
<http://www.task29.net>

Innovative Energy Group (*Arundo donax*)
<http://www.innovative-energy.com/biomass.php>

Increasing Security and Reducing Carbon Emissions of the U.S. Transportation Sector: A Transformational Role for Coal with Biomass Report, August 2007
<http://www.netl.doe.gov/energy-analyses/pubs/NETL-AF%20CBTL%20Study%20Final%202007%20Aug%2024.pdf>

Industrial Biotechnology Journal
<http://www.indbiotech.com>

International Centre for Appropriate and Sustainable Technology
<http://www.icastusa.org/index.php>

Jatoil
<http://www.jatoil.net>

Kreido Biofuels
<http://www.kreido.com/>

Large-scale genomics and proteomics biofuels related research projects in Canada
<http://www.genomeprairie.ca/index.html>

Life Cycle Strategies Pty Ltd
<http://www.lifecycles.com.au>

Martezo gasifiers
<http://www.martezo.fr>

Milena gasification technology
<http://www.milenatechnology.com/publications/>

National Energy Technology Laboratory (USA)
<http://www.netl.doe.gov>

Next Erra Gasification (Canada)
<http://www.nexterra.ca>

Pacific Natural Energy (modular biodiesel units)
<http://www.stopxon.com/>

Phyllis composition of biomass and waste database
<http://www.phyllis.nl/>

Powerhearth gasifier
<http://www.3iAlternativePower.com>

Proc of the National Academy of Sciences USA
<http://intl.pnas.org/>

Queensland Boilers
<http://www.queenslandboilers.com.au/>

Renewable Energy Focus (new web page)
<http://www.renewableenergyfocus.com>

Siloxane & VOC removal from BioGas
<http://www.PpTek.co.uk>

Simple Technologies for Charcoal Making (FAO publication)
<http://www.fao.org/docrep/X5328e/x5328e00.htm>

Small Scale biodigester (text in Spanish)
http://www.engormix.com/s_articles_view.asp?art=1212&AREA=POR-124

Small downdraft gasifiers
<http://www.americaneco-energy.com/new/WESTechnology.htm>

Small scale gasifiers
<http://gasifiers.bioenergylists.org/stratifiedgas>

Sorghum Ethanol
<http://www.new-agri.co.uk/06-6/focuson/focuson8.html>

SunEthanol
<http://www.sunethanol.com>

SuperGen (UK)
<http://www.supergen-bioenergy.net>

Tar dew points calculations

<http://www.thersites.nl/>
TerraCarbon LLC
<http://www.terracarbon.com>
Technical and Economic Assessment of Small-Scale Fischer-Tropsch Liquids Facilities
http://www.netl.doe.gov/energy-analyses/pubs/Small-Scale%20F-T%20Liquids%20Facilities_Final.pdf
NZ Bioenergy Knowledge Centre
<http://www.bioenergy-gateway.org.nz>
"Thersites" website for tar dewpoint calculations
<http://www.thersites.nl/>
Three stage gasifier (Thomas Koch)
<http://www.tke.dk/>
USA federal procurement of biobased products
<http://www.biopreferred.gov>
Valcent algae
<http://www.valcent.net/s/Home.asp>
Valley Ag Power (US)
<http://www.valleyagpower.com/index.htm>
World registry of biofuel plants
<http://worldbioplants.com>
Wood chip experimental boiler
http://www.sredmond.com/vthr_index.htm

International

IEA Bioenergy Task 39: 'Commercialising 1st- and 2nd-Generation Liquid Biofuels from Biomass'

IEA's Task 39 is a global network aimed at developing and using transport biofuels. There are currently 15 countries participating in this Task. Participants include researchers, governments and market parties wishing to exchange knowledge in order to make biofuels commercially available for the transport sector. Task 39 recently met in Rotterdam on 8 January, 2008 just ahead of the 6th European Motor Biofuels Forum, 9-10 January at De Doelen Centre in Rotterdam. Information on Task 39 is available from the Task 39 website (<http://www.task39.org>). There are two areas of focus for Task 39. The first focuses on technical developments of 2nd generation biofuels and the second focuses on policies, markets and commercialisation of biofuels.

A number of reports have been published. Some are confidential and only available to participant countries participate (contact person for Australia is Dr Les Edye of QUT). Other reports are available to the general public and can be downloaded from the Task 39 website. These reports include:

- 2007: [Biofuels in the European Union: An overview of the EU biofuels policy](#). This is a web page containing an overview of policies in Europe.
 - 2005: [Biodiesel market development in Europe: Lessons learned for North America \(Phase 1\)](#)
 - 2005: [Biofuels today, tomorrow and in future](#)
 - 2005: [Ethanol from lignocellulosics: Policy options to support bioethanol production](#)
 - 2004: [Best case studies on biodiesel production plants in Europe](#)
 - 2004: [Ethanol from lignocellulosics: Views to implementation](#)
 - 2004: [Review on biodiesel standardization worldwide](#)
 - 2004: [Task 39 Endbericht](#) (in German)
 - 2003: [Rapeseed oil as fuel for farm tractors](#)
 - 2003: [Worldwide review on biodiesel production](#)
-

Canadian Government Invests Canadian \$500 million in Next Generation Biofuels

The Canadian government has launched the NextGen Biofuels Fund which will provide Canadian \$500 million to support the development and production of the next generation of renewable fuels in Canada. With an abundance of cellulose based feedstocks with an energy content higher than conventional biofuel feedstocks, Canada is well placed to capitalise on next-generation renewable fuels.

To be eligible for the NextGen Biofuels Fund a project must:

- be a first-of-kind facility that produces a next-generation renewable fuel at large demonstration-scale
- be located in Canada
- use feedstocks that are or could be representative of Canadian biomass
- have demonstrated their technology at the pre-commercial pilot scale

Canadians Announce \$1.5bn for Biofuel

The Canadian government under ecoENERGY for Biofuels, will provide up to Ca\$1.5 billion in the form of incentives to producers of biofuels. In December 2007 new regulations requiring a 5% av. renewable content in petrol by 2010 were introduced with intent of 2% renewable content for diesel and heating oil by 2012. Canadian production of biofuels was around 400 million litres in 2006. To meet new regulations around 3 billion litres of biofuel would be needed. Source: 2007 Biofuel Review

US Department of Energy Selects Four Biofuels Projects to Receive Funding

Four biofuels research and development grants have been announced by the US Department of Energy Secretary totalling US \$7.7 million.

- Utah-based Emery Energy Company (EEC) will receive up to US \$1.7 million to demonstrate a new way to mitigate tars and oils in biomass synthesis gas. EEC will be working with Ceramatec, Inc. and the Western Research Institute on the project.
- Iowa State University will receive up to US \$2 million to test an integrated biomass-to-liquids system that minimizes waste water treatment in partnership with ConocoPhillips Company
- The Research Triangle Institute of North Carolina will receive up to US \$2 million to work with North Carolina State University and the University of Utah to generate syngas from woody biomass.
- Alabama-based Southern Research Institute will receive up to US \$2 million to use a 1 MW thermal biomass gasifier to generate syngas in collaboration with Pall Corporation, Thermochem Recovery International, and Rentech.

Source: <http://www.energy.gov/news/5757.htm>

Georgia Power Contracts with Biomass Plant

Georgia Power and Yellow Pine Energy Company, LLC, a biomass-fired facility, have signed a 20 year contract for electricity generated wood waste. The Yellow Pine facility is scheduled to go into operation in 2010 and will produce 110 MW of bioelectricity. In 2006, the Georgia Legislature passed House Bill 1018 which exempts biomass from fuel sales and use taxes, thereby making it more cost competitive with traditional fossil fuels. This will increase Georgia Power's energy portfolio to five qualified biomass and renewable facilities that generate 80 megawatts. Georgia Power is the largest subsidiary of Southern Company, one of the USA's largest generators of electricity supplying 2.3 million customers in all but four of Georgia's 159 counties. See <http://www.georgiapower.com>.

World's Largest Dedicated Biomass Energy Plant

Wales has begun construction of the world's biggest biomass plant in Port Talbot, south Wales. It is expected to start operating in 2010 and the new 350-megawatt (MW) wood chip fuelled electricity generating plant, will supply electricity to around half the households in Wales. The plant will contribute about 70 percent to the Welsh Assembly's target of generating 4 Terawatt-hours of renewable electricity for Wales by 2010 and 7 Terawatt-hours by 2020. Designed to achieve an efficiency of 35 to 40 percent in energy conversion, it will operate for 8,000 hours each year or a capacity factor of over 91 percent. Electricity will be sent through a 275 KV cable to a local electricity substation to be fed into the national power grid. According to Prenergy Power (<http://www.preenergypower.com>), the company building the plant, the 2.5-3 million tonnes of clean wood chip needed to power the plant will be imported from other countries such as Latvia and Lithuania as well as from sustainably managed forests in Canada and the U.S.A.

China Commissions Bioenergy Plants

Eight biomass plants in the main grain producing provinces in China have commenced operation by The National Bio Energy Co, a subsidiary of China's State Grid Corporation, the country's principal grid operator. The country's first biomass plant started in the eastern grain-producing province of Shandong, in December 2006. The plants have a total installed capacity of 200 megawatts and are expected to burn 1.6 million tons of stalks a year and are expected to reduce carbon dioxide emissions by 800,000 tonnes annually.

Source ENN

Increased Funding for NZ Bioenergy Projects Announced

The NZ government has increased funding for Bioenergy research. NZ\$45 million has been allocated over the next five years to encourage investment in agricultural emissions research. A further NZ\$10 million is going to be invested in research and development, and commercialisation, of bioenergy and energy efficiency opportunities. Three key initiatives for which funding will be granted have been detailed:

- A pilot project to convert a number of school boilers from fossil fuels to wood fuels. A high proportion of schools currently use coal as fuel in Otago, Canterbury, Rotorua /Bay of Plenty and Auckland and these will be converted initially
- Industrial scale co-generation demonstration pilots
- Research to find cost-effective technologies for collecting wood residues from forests for use as bio-energy.

Further information: <http://www.maf.govt.nz/climatechange/poa-investment-sheets/investment-sheet-bioenergy.htm>

Advisory Committee Updates Roadmap for Bioenergy and Biobased Products in the United States

The US Biomass Research and Development Technical Advisory Committee recently released its *2007 Roadmap for Bioenergy and Biobased Products in the United States*. See:

http://www.brdisolutions.com/Site%20Docs/Roadmap/OBP_roadmapv2_web.pdf

The Roadmap lays out an R&D strategy and recommends policy measures needed to advance biomass technologies and help create an economically viable, sustainable and environmentally desirable biobased industry. The Committee's Roadmap also reflects progress made since the Committee's original Roadmap released in 2002, reflecting the dramatic rise in interest in biomass technologies that has occurred since then.

US Bioenergy Research Centres

The U. S. Department of Energy (DOE) Office of Science is establishing and operating three new Bioenergy Research Centres to accelerate basic research in the development of cellulosic ethanol and other biofuels with a total investment to over US\$400 million. The Centres will bring together diverse teams of researchers from 18 of that nation's leading universities, seven DOE national laboratories, at least one nonprofit organisation, and a range of private companies. All three Centres are located in geographically distinct areas and will use different plants both for laboratory research and for improving feedstock crops. The Centres will be located in Oak Ridge, Tennessee; Madison, Wisconsin and Berkeley, California and will consist of multidisciplinary teams of scientists. The role of these centres will be to work on transformational science needed to make biofuels financially viable and increase their use for transportation.

Further Information:

http://www.science.doe.gov/News_Information/News_Room/2007/Bioenergy_Research_Centers/index.htm.

NExBTL Renewable Diesel wins top Cleantech Finland award

Finland's Neste Oil's NExBTL Renewable Diesel has won the product category of the Finnish section of the European Business Awards for the Environment. Winners will also take part in a European-wide competition by the European Commission's Environment Directorate-General. The next European competition will be announced in Brussels in June 2008 during Europe's Green Week. NExBTL Renewable Diesel is the world's first commercial second-generation biodiesel. Any vegetable oil or animal fat can be used to produce NExBTL, making it a versatile and flexible renewable fuel.

Source: Neste Oil Corporation

Dynamotive to Develop Biofuel and Electricity Complexes for Rural Argentina

Dynamotive Energy Systems Corporation has submitted plans to invest Canadian \$105 million to build two electricity generation complexes in north-eastern Argentina. Each plant will consist of a 15.7 MW generation station powered by its bio-oil product, produced from wood waste and forest residue. The bio-oil will be produced by two 200-tonne-per-day modular plants. Excess fuel will be sold to commercial and industrial markets. Once the complexes are fully operational 340,000 dry tonnes of biomass will be produced annually which will allow for further expansion to other locations.

First Commercial Plant in U.S. to Produce Liquid Biofuel from Wood Residues to be Built by Dynamotive in Missouri USA

Dynamotive Energy Systems Corporation and its subsidiary, Dynamotive USA, Inc. have announced plans to invest US\$24 million to build the first fully commercial industrial biofuel plant in the U.S. The facility will be located on a site in Willow Springs, Missouri approximately 300 km southwest of St. Louis. It is anticipated that 129,000 litres of biooil will be produced per day and sold to commercial and industrial users.

World's Largest Wood Pellet Plant Established in Florida, USA

Green Circle Bio Energy Inc., a Florida-based company owned by JCE Group AB of Sweden opened the world's largest wood pellet plant in Jackson, Florida in December 2007. The plant cost US\$65 million and will produce 500,000 tons of pellets annually enough to generate 2,400 gigawatt hours of electricity. The pellets will be shipped to Europe, as there is little demand from U.S. power plants for woody biomass.

Source: Biomass Magazine

Colorado Mill to Turn Wildfire Fuel into Pellets for Home Heating

Confluence Energy plan to open a US \$8 million plant to produce up to 109,000 tonnes of wood pellets for use as fuel for heating stoves in homes. The low value woody biomass comes from deadwood found in forests that is of little value to the timber industry in Colorado. Benefits include new employment opportunities within the community, assistance to associated industries and low cost fuel for heating in homes.

Sources: http://www.denverpost.com/news/ci_6134125

http://www.rockymountainnews.com/drmn/other_business/article/0,2777,DRMN_23916_5742931,00.html

US Senate Passes Farm, Nutrition and Bioenergy Act

The U.S. Senate passed the Farm, Nutrition and Bioenergy Act of 2007 -Title IX - Energy (H.R.2419) by a vote of 79 to 14 in December 2007. New programs established under this title include:

- a payment program for producers of advanced biofuels
- two programs to develop use of renewable woody biomass
- authority for a series of regional biomass crop experiments
- authorisation for a number of studies, including one on life-cycle emissions analysis for biofuels and
- investigation into infrastructure needs
- Title IX also reauthorizes a number of existing programs, such as the biomass research and development program, a program for federal procurement of biobased products, and an assistance program for biorefineries and repowering projects.

Sources: [Link to Senate Agriculture Committee Homepage](#): [Link to EESI Release](#)

Hollow Fibre Membrane to Increase Efficiency in Ethanol Dewatering

Quebec-based Vaperma, Inc. has developed a hollow fibre technology that increases the efficiency of the dehydration phase of ethanol production. The Siftek™ membrane can be easily integrated into existing technology and Vaperma anticipate putting it on the market in 2008.

Sources: http://ethanolproducer.com/article.jsp?article_id=3494

http://www.vaperma.com/technology/vaperma_development.php?lang=en

Syngenta Develops Corn with Enzyme Included

Syngenta Seeds, Inc. has developed a new corn seed that contains the amylase enzyme used in the dry grind ethanol production process. The U.S. Food and Drug Administration has approved bulk trials for the new seed. The new corn seed should be on the market in the 2009 growing season.

Sources: <http://www.ft.com/cms/s/0/7c5e83c6-907b-11dc-a6f2-0000779fd2ac.html>
<http://www.cfsan.fda.gov/~rdb/bnfm095.html>
http://www.eere.energy.gov/afdc/fuels/ethanol_production.html

Masada Teams with Dominican Republic Co. to Develop Waste-to-Ethanol Projects

Masada Resource Group, LLC of Birmingham, Alabama, and RJ Zapata & Associates S.A of Dominican Republic are working to develop a commercial-scale waste to ethanol production facilities in the Dominican Republic. Fuel grade ethanol and electricity will be produced from domestic garbage. For more information, visit: <http://www.masada.com>.

Wärtsilä Delivers First Biopower Plant to Czech Republic

Wärtsilä Corporation will supply a biomass-fuelled heat and power plant for the Less & Timber sawmill in Caslav, Czech Republic. The plant will burn bark and wood chip from the sawmill with a net electrical power output of 4.3 MWe, and a thermal output of up to 10 MWth. The plant is due to be completed in October 2009.

Source: Energy and Enviro Finland

Forthcoming Events

- Renewable Fuels Association (USA) 13th Annual Ethanol Conference – Changing the Climate.
25-27 February 2008
JW Marriott Grande Lakes Orlando
Orlando, Florida
<http://www.nationalethanolconference.com>
- NSW State Energy Outlook Conference
27-28 February 2008
L'Aqua, Cockle Bay Wharf, Sydney
<http://www.informa.com.au/nswpower>
- EcoForum Conference & Exhibition
27-29 February 2008 Conrad Jupiters, Gold Coast
<http://www.ecoforum.net.au/2008>
<http://www.corntechconf.org/>
- ABARE's Outlook 2008 Conference
4-5 March 2008
<http://www.abareconomics.com/outlook>
- World Sustainable Energy Days
5-7 March 2008, Wels, Austria.
<http://www.esv.or.at>
- The 14th Annual Fuels & Lubes Asia Conference,
5 -7 March, 2008
Grand Hyatt Seoul, South Korea
<http://www.flasia.info/seoul/program.asp>
- BioEnergy to Electricity
6 - 7 March 2008
Boulder, CO, USA
<https://www.euci.com/conferences/0308-biogas/agenda.php>
- CEP Clean Energy Power[®] 2008
7- 9 March 2008
Stuttgart, Germany.
<http://www.cep-expo.com>

- GLOBE 2008 Conference and Auto Future Tech Summit.
12-14 March 2008, Vancouver, Canada.
<http://www.globe2008.ca> & www.autofuturetech.com
Email: info@globe2008.ca
- World Biofuels Markets
12 - 14 March 2008
Brussels Expo, Belgium. Contact victoria.adair@greenpowerconferences.com. Tel: 0044 207 801 6333. Members of Bioenergy Australia are eligible for a 15 percent discount on the published prices. Quote *bioea* when booking.
<http://www.worldbiofuelsmarkets.com>
- National Oil Mallee Conference
14-15 March 2008
Vines Resort, Perth WA
Phone: 1800 625 511
<http://www.oilmallee.com.au>
- Canadian Renewable Energy Workshop
16 – 18 March 2008
IPSCO Place, Regina, Saskatchewan
<http://www.crew2008.com/ema/DisplayPage.aspx?pageId=Home>
- 8th European Conference on Industrial Furnaces and Boilers (Infub-8)
25-28 March 2008 Vilamoura, Algarve, Portugal at Forum Dom Pedro.
<http://www.cenertec.pt> and <http://www.cenertec.pt/infub>
- Biofuels Summit
27-28 March 2008
Bangkok, Thailand
Contact: *Salvo Global* Tel: +65 6297 8545 Fax: +65 6336 1716
- LOw CO2 MOTION workshop – How to make low-carbon fuels and vehicles work for your fleet
Friday 28 March 2008
Berkshire College of Agriculture, Maidenhead, UK
http://www.tvenergy.org/pdfs/lowco2motion_invitation_08.pdf
- The 2nd Newgrace China International Bioenergy (Shanghai) Exhibition
31 March to 2 April 2008
Shanghai, China
Hotline: 86-21-34080282
Fax: 86-21-34085282
E-mail: nuogaisi2004@126.com
Web: www.china-bioenergy.net
Contact Person: Maria 86 13023238802
- ARGUS Biodiesel Trading in Asia
3 April 2008
The Fairmont Singapore Hotel, Singapore.
<http://www.argusbiodiesel.com/pdf/ArgusBiodieselTradinginAsia.pdf>
- Bois Energie 2008 wood energy exhibition (free entry)
3-6 April 2008
Lons-le-Saunier, France
<http://www.boisenergie.com>
- Ethanol 2008 – local solutions for global issues
8-10 April 2008
Sydney Convention Centre, Darling Harbour, Sydney Conference Information:
Louise Jordan
General Conference Coordinator
BBI Biofuels Australia Pty. Ltd.
Email: ljordan@bbibiofuels.com Tel: 07 3360 7006
- BioPower Generation™
9-10 April 2008

- Le Plaza Hotel, Brussels Belgium
<http://www.greenpowerconferences.com>
- International Biomass '08 Conference and Trade Show – Power, Fuels and Chemicals
 15-17 April 2008
 Minneapolis, Minnesota, USA.
<http://www.biomassconference.com>
 Email: abstracts@bbibiofuels.com
 - Workshop on 'Health, Safety and Environmental Issues in Biomass Gasification Systems'
 22-23 April 2008
 Austria Trend Hotel Savoyen, Vienna Austria
<http://www.vt.tuwien.ac.at/conferences/>
 - China EPower 2008 - Exhibition for Energy Generation Industry
 22-24 April 2008.
 Shanghai, China
<http://www.china-epower.com>
 - RENEXPO® Central and South-East Europe 2008
 24-26 April 2008
 Budapest, Hungary
<http://www.renexpo-budapest.com>
 - World Congress on Industrial Biotechnology and Bioprocessing
 27-30 April 2008
 Chicago, Illinois, USA,
<http://www.bio.org/worldcongress2008/>
 - BIOENERGY FORUM 2008 "Fuelling the Growth & Sustainability of Biofuels in Asia"
 28 – 30 April 2008
 Swissotel Nai Lert Park Bangkok, Thailand
www.abc-asia.com/bioenergyforum
 - Sustainable Energy Regulation and the Market
 28 - 29 April 2008
 Central London
<http://www.smi-online.co.uk/goto/08sustainable.asp?emref=S99EP92430530&>
 - 30th Symposium on Biotechnology for Fuels and Chemicals
 4-7 May 2008
 Astor Crowne Plaza Hotel, New Orleans, LA, USA. Email: meetings@simhq.org
<http://www.simhq.org/meetings/30symp/index.html>.
 - Enviro 08
 5-7 May 2008
 Melbourne Exhibition and Convention Centre.
<http://www.enviroconvention.com.au> Email: program@enviroconvention.com.au
 - Kyoto: Policy in Practice - "An Industry Response"
 7 - 8 May 2008
 Sydney Harbour Marriott, Sydney
<http://www.iir.com.au>.
 - 2008 China Biomass (Straw) Utilization Conference & Exhibition
 9-11 May 2008
 Beijing, China.
 Tel: +86-01-84832643 Fax: +86-01-84861692 Email: straw@vip.163.com
 Contact: Benita Zhao
<http://www.china-straw.com/event>
 - 3rd International Symposium MBT and Waste Sorting Technology
 12-14 May 2008
 Hanover, Germany
<http://www.wasteconsult.de>
 - SMALLWOOD 2008 and Bioenergy & Wood Products
 13-15 May 2008

Monona Terrace Community & Convention Center
Madison, Wisconsin, USA

Julie Lang at the Forest Products Society, conferences@forestprod.org.
<http://www.forestprod.org/>

- Genetically Modified Crops Summit
21-22 May 2008
Rendezvous Hotel, Melbourne
<http://www.informa.com.au/gmcrops>
- World Bioenergy 2008 Conference and Exhibition on Biomass for Energy
27-29 May 2008, Jönköping Sweden.
<http://www.worldbioenergy.se>
- National Emissions Trading Summit
29-30 May 2008
Crowne Plaza Darling Harbour, Sydney
<http://www.informa.com.au/emissionstrading>
- International Conference on Renewable Resources and Biorefineries
1 - 4 June 2008
Rotterdam, Netherlands
<http://www.rrbconference.com/>
- 2008 Corn Utilization and Technology Conference
2-4 June 2008
Kansas City, Missouri, USA
<http://www.corntechconf.org>
- 16th European Biomass Conference and Exhibition - From Research to Industry and Markets
2 - 6 June 2008
Feria Valencia, Spain
<http://www.conference-biomass.com>
- Third International Bioenergy Conference And Exhibition
3-5 June 2008
Prince George Civic Centre, Prince George, British Columbia, Canada.
<http://www.bioenergyconference.org>
- 17th World Hydrogen Energy Conference
15-19 June 2008
Brisbane Convention and Exhibition Centre
<http://www.whec2008.com>
- 24th Annual International Fuel Ethanol Workshop & Expo
16-19 June 2008
Nashville, Tennessee, USA.
<https://www.fuelethanolworkshop.com/ema/DisplayPage.aspx?pageId=Registration>
- Breaking the Chemical and Engineering Barriers to Lignocellulosic Biofuels
June 25 - 26, 2008
Washington, D.C., USA.
<http://www.ecs.umass.edu/biofuels/>
- NSW Waste Management and Expo Conference 2008: Resource Recovery for Climate Recovery
16 - 18 September 2008
Luna Park, Sydney.
For further information, please contact:
Veronica Dullens, Waste Management Association of Australia
Suite 4D, 5 Belmore St, Burwood NSW 2134
Tel: 02 8746 5055 Email: veronica@wmaa.asn.au
- Waste 2008 - Waste and Resource Management - a shared responsibility
16 - 17 September 2008
Stratford-upon-Avon, Warwickshire, England
<http://www.waste2008.com>
- 4th International Conference "Biomass for Energy"

22-24 September 2008

Kiev, Ukraine.

<http://www.biomass.kiev.ua/conf2008>

- International Conference on Gasification in Fluidized Beds
21-27 October 2008
Xijiao Hotel, Beijing, P. R. China
Contact: Prof. Dr. Guangwen Xu
Institute of Process Engineering (IPE)
Chinese Academy of Sciences (CAS)
P. O. Box 353, Beijing 100080. P. R. China.
Tel: 0086-10-62550075, Fax: 0086-10-62550075
Email: gw Xu@home.ipe.ac.cn
- Second International Symposium on Energy from Biomass and Waste
17-20 November 2008
Venice Italy
<http://www.venicesymposium.it>
- Clean Energy Council Conference & Exhibition 2008
24-26 November 2008
Gold Coast Convention & Exhibition Centre, Gold Coast, Queensland.
<http://www.cleanenergycouncil.org.au>
- Asia Pacific Regional ISES 2008
25-28 November 2008
Sydney Convention & Exhibition Centre
Abstract closing date - 5 May 2008
C/- ICMS Pty Ltd
Level 3, 379 Kent Street, Sydney NSW 2000, Australia
<http://www.isesap08.com> Email - isesap08@icms.com.au
- 5th International Conference on Combustion, Incineration/Pyrolysis and Emission Control
16-19 December, 2008
Chiang Mai, Thailand Email: srk@kmitnb.ac.th

Residues

Bioenergy and bioproducts reports: RIRDC and the CSIRO Energy Transformed National Research Flagship have collaborated in addressing Australia's knowledge gaps in biofuels and bioproducts, to produce a set of reports:

- Biobased products - opportunities for Australian agricultural industries
- Biofuel co-products for livestock
- Bioenergy, Bioproducts and Energy - a framework for research and development
- Biofuels in Australia - some economic and policy considerations

These reports were launched at the Bioenergy Australia 2007 conference and are available from RIRDC. Tel: 02 6271 4100 or from <http://www.rirdc.gov.au>.

CSIRO report for Caltex: The CSIRO has fairly recently released a 126 page report entitled *The greenhouse and air quality emissions of biodiesel blends in Australia*, by Tom Beer, Tim Grant and Peter K Campbell, for Caltex, on greenhouse gas and air quality emissions of biodiesel blends in Australia. The CSIRO report shows a significant reduction in greenhouse gas emissions occurs even with a two percent biodiesel blend. The report is at: <http://www.csiro.au/files/files/phim.pdf> (2718 KB).

Bioenergy Roadmap project: The development of an Australia Bioenergy Roadmap is underway, being led from the Clean Energy Council, with funding from the Federal Government's Department of Environment, Heritage, Arts and Water Resources. A Roadmap workshop was held within the Bioenergy Australia 2007 conference, and subsequently a steering committee has been formed. The Roadmap process will involve broad stakeholder consultations. The project is scheduled to conclude at

the end of June 2008. For further information contact Sarah Jones, Email sjones@cleanenergycouncil.org.au.

Biomass Action Plan: The European Union's Biomass Action Plan from December 2005 is on the Web at: <http://www.bioenergie.de/downloads/BAP%207%20dec%202005.pdf>

ABC TV program segment on bioenergy: The ABC TV Landline program on 10 February featured sugarcane trash as a source of biomass for two 30 MW bioenergy power plants soon to enter commercial operation on the NSW north coast at the Condong and Broadwater sugar mills. The program may be streamed from : http://www.abc.net.au/reslib/200802/r222563_877692.asx

Conference Proceedings: A four page article from Ethanol Producer magazine entitled 'Sunshine Summit: A Review of Florida's Farm-to-Fuel Conference' of September 2007 is at: <http://www.floridaenergycommission.gov/UserContent/docs/File/EthanolProducerMag0907.pdf>

UK ROC Scheme: The January 2008 response from the UK Government to changes to the UK ROC (Renewable Obligation Certificate) scheme is at <http://www.dti.gov.uk/files/file43545.pdf>. Suggested changes relate to co-firing of biomass with fossil fuels and to the use of energy crops.

Success in using low frequency magnetic waves: Researchers from the State University of Campinas in Brazil have shown success in using low frequency magnetic waves to boost the amount of ethanol produced through the fermentation of sugar. Their study is available as an open access article in the advance online edition of the American Chemical Society's *Biotechnology Progress*. <http://pubs.acs.org/cgi-bin/sample.cgi/bipret/asap/pdf/bp070078k.pdf>

Report: biomass fastest growing renewable in EU, largest potential

The European Biomass Association (AEBIOM) has released its overview of the state of bioenergy in the 27 member states of the EU. Recommendations for the then upcoming Renewable Energy Sources Directive are included. The report shows that biomass is by far the fastest growing renewable energy source and that it has the largest potential for clean energy generation within the Union. http://www.aebiom.org/IMG/doc/Press_release_13Sept2007_Statistics.doc
<http://biopact.com/2007/09/report-biomass-fastest-growing.html>

Bioethanol for Sustainable Transport: This report deals with the introduction and market penetration of bioethanol as a vehicle fuel, and the establishment of infrastructure for supply and fuelling of bioethanol. For more information: <http://www.best-europe.org>.

A CSIRO Report has found farmers could make an extra \$3 billion a year by helping to produce clean energy and by offering carbon offsets to major polluters. See: http://www.climateinstitute.org.au/index.php?option=com_content&task=blogsection&id=4&Itemid=41

Nano-sieve for carbon dioxide separation: Researchers from Hanyang University in Korea, the University of Texas and CSIRO, have developed a new plastic material that allows carbon dioxide and other small molecules to pass through while preventing passage of larger molecules such as methane. The material is durable and can withstand high temperatures necessary for carbon capture applications. This material could well have application for separating the two major constituents of biogas; methane and carbon dioxide.
Source: CSIRO Materials Science and Engineering

Invitation to visit by Wimmera Biodiesel: Wimmera Biodiesel at Kaniva, Victoria is offering tours of an oil seed crush mill, pilot plant, blending facility and their 1.8 million litre per annum biodiesel plant, which is under construction and due to be commissioned in February 2008. For full details, photo gallery, business and employment opportunities within the company see <http://www.wimmerabiodiesel.com.au>.

BioGast supplies green gas from sewerage treatment plant: The sewerage treatment plant in Beverwijk, The Netherlands contains the first plant in that country to produce purified biogas for cars and homes. The plant produces CO₂-neutral gas, with the same quality as natural gas. See: <http://gave.novem.nl/gave/index.asp?id=25&detail=1840> and <http://www.ngvglobal.com/market-developments/netherlands-water-board-puts-sewage-to-use-as-transport.html>

Low cost home-made biodiesel: Since the authorities in the UK have exempted the first 2500 litres of home-made diesel from excise duty, production has increased significantly. EcoTec Resources UK, the largest supplier of DIY kits, has reported that 360 kits have already been sold. See <http://gave.novem.nl/gave/index.asp?id=25&detail=1841> and <http://www.etruck.com/>.

Plantation Timber Industry Biosecurity Plan launched: The Plantation Timber Industry Biosecurity Plan (IBP) provides the blueprint for Australia's plantation timber industry in the fight against pests and diseases that threaten sustainability, profitability and viability. The plan can be downloaded from <http://www.planthealthaustralia.com.au>.

Blooming Futures is a not-for-profit workers' cooperative promoting the use of Pure Plant Oil in diesel engines. See: <http://www.bloomingfutures.com> source: Biofuel Cities Project Database

ARC Grant awarded to CEEM: The UNSW based Centre for Energy and Environmental Markets has been awarded an ARC Discovery Grant commencing in 2008. The three year project topic is 'Understanding the interactions between emissions trading and wholesale electricity markets'.

Biofuels for transport: The Worldwatch Institute has published, *Biofuels for Transport*, a 450-page book with contributions by 16 global experts. It is available for purchase from: <http://www.worldwatch.org/node/5305>

OECD delivers blow to EU biofuels plans: The OECD has issued a warning that government support for biofuels will cause food shortages destruction of natural habitats and make little impact on climate change. Download the full report at http://www.biofuel-cities.eu/fileadmin/template/projects/biofuels/files/Newsroom/OECD_Biofuels_Cure_Worse_Than_Disease_Sept07.pdf source: EurActiv

IEA Bioenergy Task 39: Task 39 has prepared a report on 'policy and implementation of transport biofuels' within the IEA's Bioenergy Agreement, in which Australia through Bioenergy Australia participates. See: <http://www.task39.org>.

Green Pacific Energy is reported to have plans to recapitalise and build a 16MW power plant at Stapylton in Queensland. A \$100,000 feasibility study into the new powerplant at Stapylton will be conducted by BMI Group and if positive there will be a move to relist Green Pacific Energy shares on the Australian Stock Exchange.

IEA Bioenergy Handbook on Biomass Combustion and Co-Firing: During 2004-2006, when Bioenergy Australia participated in Task 32 of IEA Bioenergy, the Task participants compiled a handbook on the theory and application of biomass combustion and co-firing. The 464 pages Handbook is authored by several leading academics and industrial experts and is an authoritative text on this subject. The hardcover edition has now been released by Earthscan and is available for sale. Further details are at: <http://shop.earthscan.co.uk/ProductDetails/mcs/productID/589>

Bioenergy Youtube videos:

- A Youtube video showing the manufacture and operation of a small truck mounted gasifier is at <http://au.youtube.com/watch?v=OgbAOBkoI84>
- The Making of a Woodgas Truck <http://www.youtube.com/watch?v=gSifqTsd40&NR=1>
- Making 2x2 Alder for woodgas fuel <http://www.youtube.com/watch?v=7w3-qvJB2io>
- The Making of a woodgas cooler <http://www.youtube.com/watch?v=AXgtDyp9GsE>

Sawmill residues bioenergy report: A 90 page report entitled *Opportunities for Using Sawmill Residues in Australia*, for Forest and Wood Products Australia is at:
<http://www.fwprdc.org.au/content/pdfs/new%20pdfs/PR08.2046%20Opportunities%20for%20using%20Sawmill%20Residues%20in%20Australia%20final%20web.pdf> or via
<http://www.fwprdc.org.au/menu.asp?id=36&lstReports=15>

Publication of blueprint for green energy in the Americas: The Inter-American Development Bank (IDB) has published *A Blueprint for Green Energy in the Americas*. The report covers the biodiesel and ethanol markets in 50 countries. See: <http://www.iadb.org/biofuels/>

IEA global assessment workshop.

IEA and the Carbon Sequestration Leadership Forum held a workshop in Oslo, Norway, 21-22 June 2007. The summary report is available from the IEA website at:
http://www.iea.org/Textbase/publications/free_new_Desc.asp?PUBS_ID=1979. Findings are to feed into the G8 Plan of Action on Climate Change, Clean Energy and Sustainable Development.

COGEN challenge - Pick the Right Cogeneration Technology is a 12 page document issued by the European Campaign for the Development and Documentation of 1000 Small-scale Cogeneration Projects in European Cities and Towns. It can be downloaded at:
http://www.cogen.org/cogen-challenge/Downloadables/Technology_Checklist_260706.pdf

Biofpr- a new journal: Biofpr (Biofuels, Bioproducts and Biorefining), is a new peer reviewed journal published by Wiley-Blackwell publications launched in 2007. The website
<http://www.biofpr.com/view/0/index.html>

Virgin Atlantic tests biofuel on 747 flight from London to Amsterdam: Virgin Atlantic plans to fly a Boeing 747-400 from London (Heathrow) to Amsterdam (Schiphol) on biofuel in February, 2008. No passengers will be allowed on this test flight

Renewable Energy Directive - European Commission report: On 23 January the European Commission proposed a new Directive on the use of renewable energy. All related documents can be found at http://ec.europa.eu/energy/climate_actions/index_en.htm. Concerning biofuels, the proposal in this document sets an obligatory target of 10 percent biofuels market-share in transportation in each Member State by 2020. Biofuels will only count towards this target if they meet minimum sustainability criteria of:

- At least 35% GHG reduction
- No production of raw materials from land with recognised high biodiversity values
- No production of raw materials from high carbon stock land
- EU production of raw materials according to cross compliance criteria.

Also see: http://ec.europa.eu/energy/climate_actions/doc/2008_res_directive_en.pdf

EU Technology Platform: The European Biofuels Technology Platform has published its Strategic Research Agenda (SRA) and Strategy Deployment Document (SDD) and presented it at a Stakeholder Plenary Meeting on 31 January in Brussels. The related documents and presentations can be found at <http://www.biofuelstp.eu>.

Australian Forest and Wood Products statistics released: ABARE report on Australian Forest and Wood Products Statistics - March/June 2007 shows forest product exports increased by AU\$212 million in 2006-07. This increase in exports was largely due to an extra AU\$116 million of woodchips being exported to Japan. A free download of the report is available from the ABARE website:
<http://www.abareconomics.com>.

Chicken waste bioelectricity in Northern Ireland: Moy Park and O'Kane's Poultry have teamed up with Glenfarm Holdings and Rose Energy to build a £100 million power station in County Antrim that will use poultry litter as the energy source. The plant will generate 30 MW.

EU biomass market statistics: The European Biomass Association's (AEBIOM) new *European Biomass Statistics 2007 report* offers a comprehensive analysis of the current bioenergy situation in the EU 27 member states. The report shows that a strategy to encourage renewable heating is vital if the EU is to achieve the renewable energy target of 20 percent by 2020.
http://www.aebiom.org/IMG/doc/Press_release_13Sept2007_Statistics.doc

Royal Society Working Group - Sustainable biofuels: prospects and challenges: The UK Royal Society convened a working group of leading experts to consider the science and technology prospects of delivering efficient biofuels for transport in the broader context of environmental protection and sustainability. The full report *Sustainable Biofuels: Prospects and Challenges* is downloadable at: <http://royalsociety.org/displaypagedoc.asp?id=28632> . More information is at: <http://royalsociety.org/news.asp?id=7367>

Biogas plant markets boom worldwide in municipalities, industry and agriculture: Helmut Kaiser Consultancy has released a new study about the markets for biogas plants worldwide. It is expected that by 2020 the world market will exceed 25 billion Euro. The study showed that although the market is growing, so too is the competition. The key will be knowledge in biotechnology, molecular science, and optimization in the future. Email: Hkc22@bluewin.ch

Biofuel in Scotland: Scientists at the University of Abertay, Dundee are looking into the possibilities of using residues from beer breweries and whisky distilleries to produce bioethanol. This will be the focus of the year-long Dundee project. See: <http://cordis.europa.eu/search/index.cfm?fuseaction=news.simpledocumentLucene&RCN=28266>

Merrill Lynch introduces biofuels indices: Merrill Lynch have introduced two indices; the MLCX Biofuels Index and the MLCX Biofuels Plus Index to offer exposure to the biofuels market to greater liquidity, transparency, and efficiency than is current. See: http://www.ml.com/index.asp?id=7695_15125_17454

Biodiesel Plant Tour Available on DVD: BBI International and Renewable Energy Group are offering *Biodiesel Production 101*, an informational DVD introduction to biodiesel manufacturing, marketing and distribution. The DVD covers the step of biodiesel production and distribution from raw feedstock to consumer use. *Biodiesel Production 101* is available at <http://www.bbibiofuels.com> or by calling +(1-719) 539-0300.

Thermochemical process converts poultry litter into bio-oil: Researchers at the College of Agriculture and Life Sciences, Virginia Tech (www.vt.edu) are developing transportable pyrolysis units that will convert poultry litter into bio-oil. Contact is: Foster Agblevor at fagblevo@vt.edu or +1(540) 231-2578. http://www.eurekaalert.org/pub_releases/2007-08/vt-tpc081307.php.

Europe to add 100 new waste-to-energy plants by 2012: Consulting firm Frost & Sullivan, have issued a report outlining that 100 new waste-to-energy plants will be operating in Europe by 2012. This will result in a capacity increase of some 13 million tonnes.

South Australia funds biodiesel project: The South Australian government will provide a \$100,000 grant to Dalriada Meat to help fund a \$5.8 million biodiesel project at its Keith abattoir, using tallow as a feedstock. Dalriada has also applied for a \$1.5 million grant from the federal Department of Transport and Regional Services.

Algae Bioreactor: Linc Energy Ltd and BioCleanCoal Pty Ltd have formed a joint venture to develop an algae bioreactor. See: <http://biocleancoal.com/index.html>.

Launch of new journal *Biotechnology for Biofuels*: A new journal *Biotechnology for Biofuels* has been launched by [BioMed Central](#). The journal is an [open access](#), peer-reviewed online journal. Immediate publication on acceptance. Published version will be placed in [PubMed Central](#). Submit your manuscript via [online submission system](#). Further information contact editorial@biotechnologyforbiofuels.com or [instructions for authors](#). Bärbel Hahn-Hägerdal, Michael Himmel, Chris Somerville and Charles Wyman are the Editors-in-Chief, *Biotechnology for Biofuels*. See: <http://www.biotechnologyforbiofuels.com/info/update>

Proceedings: 2nd International Conference for Biodiesel Manufacturers: AGQM has made available conference papers for the conference held 28-29 September 2007 in the download area of www.agqm-biodiesel.de. 80 participants from 13 countries attended. Program and papers are available for non-participants for 100 Euro(excl. VAT). Contact: Dina Bacovsky, Task39@josephinum at www.task39.org.

Norway: “carbon neutral” by 2030: Norway, the fifth largest oil producer has announced that it now aims to be ‘carbon neutral’ in 2030, 20 years earlier than previous target. The new Labour-led government and three opposition parties reached agreement to bring the new targets forward from 2050.

Brazil: Sales of flex-fuel cars at record levels: In 2007 a total of two million flex-fuel cars were sold in Brazil. This is 85.6 percent of the total car sales for the past year.

USA \$114 million for small-scale biorefinery projects: The US Department Of Energy (DOE) has allocated 114 million dollars in grants to four demonstration biorefineries in Missouri, Oregon, Colorado and Wisconsin. A wide range of cellulose-based raw materials will be tested at these refineries, to discover their potential for producing ethanol. See: <http://www.energy.gov/news/5903.htm>.

Gasification: For a summary of gasification in nine countries participating in IEA Bioenergy Task 33 see: <http://gasifiers.bioenergylists.org/ieatask33oct2007>

Weak correlation between high corn prices and consumer food price inflation: A study by the US Renewable Fuels Foundation has shown only 4 percent of change in the food consumer price index is due to corn prices. Majority of costs cover items such as labor, packaging, transportation, energy and advertising. Informa Economics released the 55 page report http://www.informaecon.com/Renew_Fuels_Study_Dec_2007.pdf (pdf format). Source: <http://www.informaecon.com/NewsReleaseDec10.pdf> (pdf format)

Shell to grow marine algae for biodiesel: Royal Dutch Shell and HR Biopetroleum have formed a joint venture company called Cellana to research the commercial viability of growing algae for biodiesel. Marine microalgae species will be grown in open air ponds and oils extracted from the algae will be refined into biodiesel. Sources: <http://news.independent.co.uk/business/news/article3244731.ece>
http://www.shell.com/home/content/media-en/news_and_library/press_releases/2007/biofuels_cellana_11122007.html

Energy and Environmental Research Center receives \$2.9 Million for three bioenergy projects: The Energy and Environmental Research Center (EERC) at the University of North Dakota was recently awarded US\$2.9 million for three bioenergy projects from Minnesota-based Xcel Energy’s Renewable Development Fund. Source: <http://www.undeerc.org/newsroom/newsitem.asp?id=302>

Closed-Loop ethanol company files for bankruptcy: The E3 BioFuels facility located in Mead, Nebraska filed for bankruptcy on 30 November 2007. The country’s first closed-loop ethanol plant was praised for its environmentally-friendly design. Mechanical failures prevented the plant from reaching

full production capacity. Sources: http://www.omaha.com/index.php?u_page=1208&u_sid=10198039
<http://www.journalstar.com/articles/2007/12/03/news/nebraska/doc475426061ff5a375224251.txt>
<http://www.e3biofuels.com/technology/index.php>

UK Government Environment Audit Committee - Are Biofuels Sustainable? Links to download the report and appendices (published 21 January 2008) are available at:
<http://www.publications.parliament.uk/pa/cm/cmenvaud.htm>.

National Climate Change Research Strategy for Primary Industries: A new national research strategy is to be established to help Australia's primary industries to be better placed to cope with climate change. Comment is invited from all stakeholders on the development of the strategy. The final strategy and recommendations are due March 2008. For more information see <http://www.lwa.gov.au/ccrspi>.

Construction of a biodigester: A video on the construction of a biodigester in the Altiplano region, Bolivia has been uploaded on Youtube. View the video <http://es.youtube.com/watch?v=3SI0XEN5Bgo>

Microbiogen wins Macquarie University Innovation award: Microbiogen won a Commercial Innovation award from Macquarie University for its Yeast Technology for a Sustainable Future with Bio-fuels. View the video link at:
<http://www.mq.edu.au/innovationawards/Movies/2007/high/index2.php?movie=18>
or through the Microbiogen web site at <http://www.microbiogen.com>

Beet sugar factory produces ethanol: A £20m bioethanol plant at Wissington, near Downham Market, Norfolk, UK has been opened next to the world's largest beet factory. Sugar refined from beet crops is expected to produce 55,000 tonnes of bioethanol a year.
<http://new.edp24.co.uk/search/story.aspx?brand=EDPOnline&category=News&itemid=NOED22%20Nov%202007%2021:32:21:090&tBrand=EDPOnline&tCategory=search>

UK's largest bioenergy plant starts operation: E.ON UK, started generating electricity for the first time at the UK's largest dedicated biomass power station at Steven's Croft in Lockerbie, Scotland. The £90m 44MW plant entered commercial operation in December 2007.

Scotland Sets 50 Percent Renewable Energy Target: Scotland has raised its renewable energy target from 40% to 50% by 2020. Electricity supply will come from renewable sources with an interim target of 31% by 2011.

Dutch partners to build commercial scale biomass torrefaction plant: The Energy Research Center of the Netherlands (ECN), sustainable energy consultancy Econcern and engineering and industrial investor Chemfo have announced they are to build the first commercial scale biomass torrefaction plant. It will produce second generation biomass-based pellets for multiple applications. The product has been designated as *BO2pellets*.

Opportunities Corner

The Bioenergy Australia manager would like to assist and facilitate biomass and bioenergy projects and businesses by providing information and industry contacts to link project developers, resources and energy companies, source of finance and other opportunities. If you or your organisation is interested in such assistance, please contact Steve Schuck for a free listing. Please note notices are placed using supplied information, without checking its veracity. Interested parties should make their own enquiries to verify the information below.

- **Forests NSW - Expressions of Interest**
Forests NSW is calling for Expressions of Interest from suitably qualified parties to develop a reliable and long-term market for post harvest residue from softwood plantations in the

Macquarie Region, central-western New South Wales. Currently over 1,600ha of the softwood plantation area in Macquarie Region is clearfelled annually, resulting in up to 150,000 tonnes of residue material. Expressions of Interest will only be accepted in the defined format. To obtain these documents and for further information Keith Woodward, Forests NSW, Commercial Services Division, Ph: 0447 744 480 or email keithw@sf.nsw.gov.au Written Expressions of Interest must be postmarked no later than Thursday, 21 February 2008.

- **Biofuels Tour to South America**

Kalamia Canegrowers is organising a 22 Day Sugar Study Tour of South America including Brazil, Chile and Argentina. It departs Townsville 6 May and returns 27 May. Cost: \$10,500 per person twin-share. For more information and bookings please contact: David Brandon, Tel: (07) 47 831400, Toll free: 1300 851 400, Email: david@brandonstravel.com.au

- **Research Opportunity for the Determination of Acceptable Levels Of Preservative Treated Timber In Timber Reuse Applications**

Forest and Wood Products Australia invites the submission of Preliminary Research Proposals (PRPs) from suitably qualified research providers in response to the project outlined below. Completed PRPs must be received by close of business, Friday 29 February 2008. Submissions to be lodged electronically to info@fwpa.com.au or by fax (03) 9614 6822.

The Task is to conduct a review of the literature, analysis and identification of gaps to clarify safe and appropriate limits for active and inactive components of preservative treated timber in major recycling and energy applications. The Deliverables are a:

- Literature review.
- Development of draft reuse guidelines for post consumer timber products referenced against major end use classes and dominant timber treatments.
- Dissemination of results to relevant stakeholders.

Completed PRPs will be assessed against the quality of the proposed research and communication plans, degree of co-investment provided, extent of industry linkages and partnerships, prior research provider experience in the area of timber preservatives, previous performance for FWPRDC/FWPA, contracted research projects and overall budgets and timeframes proposed. Proponents of preferred submissions will be requested to develop their PRPs into detailed research proposals. Project contact: Dr Chris Lafferty, R&D Manager, chris.lafferty@fwpa.com.au or Tel: 03 9614 7544. Deadline for Receipt of Completed PRPs is Close of Business Friday 29 February 2008.

- **Job wanted:** Doug Bull, looking to finish his Masters project about the end of February 2008. He has a mechanical engineering degree and extensive practical experience around machinery and in workshops. He is keen to get further experience in the field of biomass gasification and is interested getting further experience with biomass gasification, especially on a project aimed at using BIGCC technology. Email: burnoutdoug@hotmail.com.
- **Investors wanted:** Jesper Boesen Nelson owns a company INNOACTIVE (www.innoactive.dk) and is working on a mobile pelleting machine for pelleting biomass on location. He has a mechanical engineering degree from Odense Technical University. He requires potential investors to help finance a demonstration model. Anyone interested should contact him at: INNOACTIVE Daddellunden 16 DK-6705 Esbjerg Denmark. Tel: +45 75 18 09 70, mob: +45 24 62 28 56, Fax: +45 75 18 09 61 jeboni@mail.dk <http://www.innoactive.dk>.
- **Bioenergy project:** Bela Lassu is interested in hearing from Australian companies that are planning any bioenergy projects within the EU. He is based in Hungary and has a strong interest in agriculture and bioenergy. Tel/fax: +36-1-229-03-22; mobile: +36-20-263-1000 or +36-20-263-1001. For further information regarding Lagroland Ltd. please visit their web site, <http://www.lagroland.hu>. Telephone: +36-20-263-1001; Fax: +36-1-229-03-22 Email: b.lassu@lagroland.hu.
- **Internship wanted:** Vincent Brassinne is looking for an internship from July to August 2008 to help improve his English and experience Australia. He is a third year student at the Louvain School of Management in a Belgian University (<http://www.uclouvain.be/en-iag.html>). He is interested in clean energy. Email: v.brassinne@gmail.com.

- **Alasia New Clones: Italian company seeking collaboration:** Alasia New Clones is an Italian company wanting to exchange information and investigate possible opportunities for collaboration. The company provides hybrid poplar clones, characterised by fast growing plants and tolerance to disease. The trees are harvested every two years and fresh biomass (55% of moisture) yields can be as high as 45 tonnes/ha/year. If you are interested contact: Stefano Macchetta, Alasia New Clones - Tel: +39 0172 377422 - Fax +39 0172 377420 Email: info@alasianewclones.com Web: <http://www.alasianewclones.com>.
-

Self-Managed Subscription to Bioenergy Australia Newsletters

An email distribution list has been set up, to allow readers of this newsletter to self-subscribe (and unsubscribe) to the Bioenergy Australia Newsletters and to receive our conference notices. To self-subscribe, go to: <http://groups.google.com/group/bioenergyaustralia/subscribe>

Joining this list is purely to facilitate management of the distribution of Bioenergy Australia newsletters and the annual conference notices. It will only be used for this purpose and you will not receive other emails through this list. It is intended that over time, this will be the primary way of distributing the Bioenergy Australia newsletters and conference notices. Self-subscribing will require you to take on a list password. It would be much appreciated if you would join this group, as in the not too distant future this will be the only way newsletter notices will be disseminated. If you have any queries, please contact Steve Schuck.

Back Issues of Bioenergy Australia Newsletters – Downloadable from the Bioenergy Australia homepage: <http://www.bioenergyaustralia.org>

The Bioenergy Australia Newsletter is a complimentary service provided by Bioenergy Australia to stimulate interest and involvement in biomass and bioenergy in Australia. Email is the preferred way of distributing these newsletters. If you do not wish to receive future newsletters, please advise Steve Schuck.

Bioenergy Australia Newsletter is interested in your organisation's bioenergy related activities. Please send all press releases, article leads and conference announcements to Steve Schuck. Fax: (02) 9416 9246 Email: sschuck@bigpond.net.au.

Privacy Statement

Stephen Schuck, through Stephen Schuck and Associates Pty Ltd maintains an email mailing list and other contact information for disseminating this complimentary email newsletter and publicising bioenergy related activities on behalf of Bioenergy Australia. These details are used only for this purpose. Email addresses will not be disclosed to a third party unless it is for the purpose of informing about a Bioenergy Australia endorsed activity.

Editor: Dr. Stephen Schuck, Bioenergy Australia Manager

Any comments, suggestions, articles and feedback are welcome. The views expressed in this newsletter are not necessarily those of the member organisations. Bioenergy Australia may be contacted at:

Bioenergy Australia
7 Grassmere Rd, Killara, NSW 2071
Phone/Fax: (02) 9416 9246
Email: sschuck@bigpond.net.au
Web: <http://www.bioenergyaustralia.org>