

WELCOME from the BANZ Executive Officer -

- New Zealand Bioenergy Opportunities – there for our taking



Welcome to the latest *Bioenergy News*.

In this issue of *Bioenergy News* we welcome a number of new members which is a result of the increased activities in the sector. Work that has been undertaken by Scion for their Energyscape project plus the interest in New Zealand based production of liquid biofuels has led to a recent high profile in the media, Parliament and in general.

New Zealand is fortunate in being so rich in biofuel resources that we are well placed to capitalise on this for sourcing our energy, and exporting our international expertise.

BANZ held a very successful workshop looking at the wide range of options available for the production of liquid biofuels. This showed that there are New Zealand companies who are developing world class technologies for conversion of raw materials into liquid biofuels. We need to start showing our capabilities.

Our good news on liquid biofuels is further boosted by the new Biodiesel Grant Scheme announced by the Minister in mid-May.

BANZ, in association with EECA, has also been developing wood fuel classification guidelines. With suppliers and buyers of wood fuel being able to clearly define the product it is expected that trade in wood fuel should become easier and more reliable, thus releasing greater value throughout the wood energy value chain.

A key next step in expanding the opportunities for bioenergy is an increased partnership between forest / land owners and the bioenergy sector. This should assist better utilisation of the large opportunity that forest residues can offer all parties. BANZ has commenced discussion with such parties so as to exploit the bio component of bioenergy.

Please note – this is an extended issue of the newsletter given that we have not had one for a while.

Brian Cox, Executive Officer BANZ



This Issue

- Welcome to new BANZ Members
- Feature Article – LanzaTech – going from Strength to Strength
- News from the BANZ Board
- Recent Submission by BANZ on the Emission Trading Scheme (ETS)
- BANZ Interest Groups – Update
- Featured Bioenergy Web-sites
- New Zealand News Briefs
- What's new on the BKC?
- Update from recent Liquid Biofuel Events – March 2009
- Could **Wood Waste** be Fuels Gold? – Australia CSIRO Report

- Wood fuel Classification Guidelines
- International News
- Events Calendar
- Coming Soon.

Welcome to new BANZ Members

Welcome to the following recent 'new' members of BANZ.

Company / Organisation	Key Contact	Type of Membership
Lanzatech www.lanzatech.co.nz Barbara@lanzatech.co.nz (09) 373 4929 LanzaTech was founded in early 2005 to develop, and commercialize proprietary technologies for the production of lowest cost fuel ethanol from the carbon monoxide in low-hydrogen waste gases produced by the steel industry. The company is now ready to undertake the next stage on this critical path, the pilot-scale demonstration of its fuel ethanol production from both biomass syngas and industrial waste gas feedstocks. A pilot plant design has been developed that will allow ethanol production from each of these feedstocks to be demonstrated at scale over the next 12 months.	Sean Simpson	 Full Corporate Membership (plus Membership of the Liquid Fuels Interest Group)
Gull New Zealand www.gull.biz daveb@gull.biz Gull retails 2 grades of biofuel in New Zealand (both E10) and operates a biofuel facility in Queensland as well as retailing biodiesel in West Australia.	Dave Bodger	 Ordinary Corporate Membership (plus Member of the Liquid Biofuels Interest Group)
LentiKat's a.s. http://www.lentikats.eu/en/#bouskova@lentikats.eu (09) 238 8939	Alzbeta Bouskova	Full Associate Membership (Member of the Liquid Biofuels Interest Group)
NZ Ester Fuels Ltd. http://www.nzef.co.nz/andre@nzef.co.nz 0274 720 964, 021 677 511	Andre Hamman	Full Associate Membership (Member of the Liquid Biofuels Interest Group)
Ecodiesel gary.brockett@goecodiesel.com (09) 636 4240, 021 027 02928	Gary Brockett	Full Associate Membership (Member of the Liquid Biofuels Interest Group)
National Institute of Water and Atmospheric Research (NIWA) http://www.niwa.co.nz/r.craggs@niwa.co.nz 07 859 1807	Rupert Craggs	Full Associate Membership (Member of the Liquid Biofuels and Biogas Interest Groups)
Nu-Way Energy NZ Ltd. Paul.bowie@nuwayenergy.co.nz www.nuwayenergy.co.nz 09-274-5111	Paul Bowie	Full Associate Membership (Member of the Liquid Biofuels and Wood Fuel Interest Group)
Solray Energy http://www.solventrescue.co.nz/	Chris Bathurst	Ordinary Associate Membership (plus Member of the Liquid Biofuels Interest Group)
The Renderers Group of the Meat Industry Association http://www.mia.co.nz/	Neville Cross	Ordinary Associate Membership (plus Member of the Liquid Biofuels Interest Group)
Longbay Petroleum Associates Ltd	Brian Casey	Individual Membership (plus Member of the Liquid Biofuels Interest Group)
Ministry of Transport	Tony Frost	Individual Membership (plus Member of the Liquid Biofuels Interest Group)
Transfield Worley Ltd	Markus Benter-Lynch	Individual Membership (plus Member of the Liquid Biofuels Interest Group)
AirComm Consultants	Glenn Hill	Individual Membership
Southland Veneers	Hans Jensen	Individual Membership



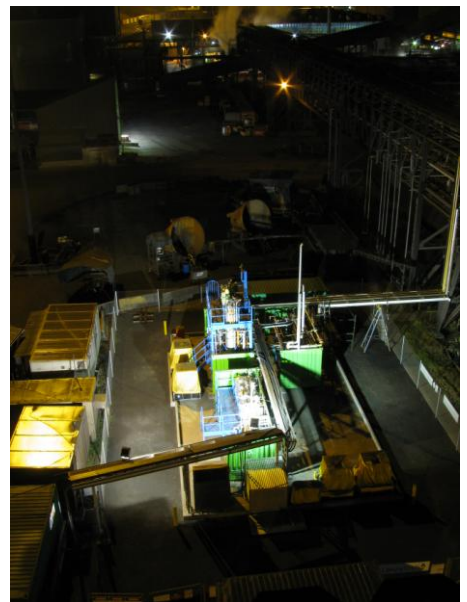
LanzaTech was founded in early 2005 to develop, and commercialize proprietary technologies for the production of lowest cost fuel ethanol from industrial waste gases. CEO Sean Simpson gives a snap-shot of what’s new at the company.

The company attracted series A investment from a US investor consortium led by Khosla Ventures. LanzaTech was the only non-US company to attract funding, highlighting the potential of our technology in the field of ethanol production. With the increased funding, we were able to expand the focus of our process development program to include biomass-derived syngas (this contains elevated levels of hydrogen gas). Thus, our gas fermentation technology can be applied commercially to enable the production of fuels from either industrial waste gas or biomass derived syngas.

Specifically, our plan is to develop an ethanol production process that can be retrofitted to industrial facilities to generate ethanol from the carbon monoxide component of waste flue gases.

Last year we received additional funding from the Foundation for Research, Science and Technology. We have now been able to scale up our process, running a world first pilot plant at a steel mill in South Auckland. There is huge global potential in making fuel from waste gases, which are already being produced in big volumes and going to waste.

LanzaTech is also able to use syngas that can be produced from waste cellulosic biomass (woody biomass) and municipal waste by gasification to produce ethanol. A key advantage of the LanzaTech process is that it is “feedstock agnostic” i.e. It can use almost any organic waste or biomass allowing it to focus in those that are available in high volumes, are low value and are non food (e.g. municipal waste, organic industrial waste (tyres), waste wood).



The clear advantage of this approach to capturing the energy in biomass is that through gasification over 90% of the energy is made available for fermentation whereas more conventional technologies (for instance cellulose fermentation), may only access the carbohydrate portion of the biomass.

The LanzaTech process addresses the global need for cost-competitive low carbon transport fuel, has the flexibility to either be used to reduce GHG emissions from steel manufacture or through the direct displacement of fossil fuels with biomass derived ethanol.

Today the company employs a large team, has a strong, rapidly growing patent portfolio, and has adopted an aggressive stage-gated critical path through process piloting to commercialization.

Sean Simpson CEO and CSO

News from the BANZ Board

The Board meetings since the last Bioenergy News were 13 November 2008, 10 February 2009, 7 April 2009.

BANZ Board Members are listed here: <http://www.bioenergy.org.nz/aboutus.asp>

The minutes from each of these meetings are on the BANZ web-site – Member's Only area as they are approved. They are available using this link: <http://www.bioenergy.org.nz/members/login.asp>

Recent Submission by BANZ on the ETS

Following the Government's call for submissions to the Emissions Trading Scheme Review Select Committee the Bioenergy Association of New Zealand (BANZ) made its submission indicating its support for the development of an Emission Trading Scheme (ETS) provided that there are other complementary mechanisms, and provided that the ETS is structured to provide business with long-term surety of policy on which to base planning decisions.

BANZ Executive Officer, Brian Cox said, *'Bioenergy can also contribute significantly towards achieving the goals of the ETS and the Kyoto agreement. The strategies that the Government develops must foster the widest use of a fuel resource like Bioenergy that is plentiful and sustainable.'*

BANZ believes that the ETS alone – as a 'stick' mechanism – will not be effective in helping New Zealand to realise the multiple benefits that bioenergy can deliver. Complimentary 'carrot' mechanisms are also essential to achieving greater uptake.'

Mr Cox outlined the main three mechanisms favoured by BANZ:

- **A Contestable Capital Grant System** - *Given the current scarcity of capital, the most effective complimentary mechanism would be a beefed-up contestable capital grant system, similar to the Wood Energy Programme. This scheme is already being administered by EECA with an expert industry panel of advisors, and will run out of funds very soon. This Wood Energy Programme provides a ready-made conduit through which more funds could easily and quickly be channelled to stimulate energy infrastructure projects and create jobs. The current cap of \$200,000 per project needs to be raised significantly.*
- **Roll out more Pilot Schemes** – *The roll-out of more Pilot Schemes, similar to the Renewable Heating for Schools programme run by EECA, are an excellent way to get real projects out into the communities. Similar Pilot schemes at Hospitals, Prisons, Swimming Pools etc. would be a major stimulus to encourage other wood energy projects, providing sustainable local jobs and a boost to the local forest industry. EECA already has the team in place and the in-house expertise to quickly roll-out further pilot schemes.*
- **Accelerated depreciation** - *Accelerated depreciation provisions for renewable energy investment to encourage their uptake.*

Mr Cox added, "BANZ also believes that the ETS should contain specific provisions to facilitate initiatives to increase the amount of forestry and to grow fuel crops, on marginal or previously forested land, to provide fuels that can displace coal and gas usage, and provide a raw material for future development of ethanol and other second-generation products."

BANZ indicates in its submission that with the right mix of policies, significant penetration of biomass fuels, displacing hydrocarbons, can be achieved using partial Government finance to overcome the private sectors reluctance to invest at this time, thereby unlocking significantly more private finance to fund such infrastructure projects. This would deliver construction-related jobs as well as ongoing jobs in the wood fuel supply chain in local communities.

BANZ says that with the right blend of the ETS and complimentary schemes, New Zealand has the natural resource and expertise to put together its own New Green Deal to use this time of economic crises to begin the transition to a more robust, lower carbon and lower cost economy.

Mr Rob Mallinson, Chairman of BANZ, said, “*Bioenergy offers multiple benefits to the New Zealand economy such as regional and sustainable job creation, energy resilience, a healthier forestry industry, more carbon sequestration, lower embodied carbon in New Zealand exports, a lower cost base for New Zealand organisations etc. As an industry, we look forward to being able to work with the Government to make these opportunities a reality in particular in the current financial climate.*”

Members can view the full submission on the BANZ website [here](#). Supporting information is also available [here](#).

Featured Bioenergy Web-sites

Global Bioenergy Partnership (GBEP) brings together public, private and civil society stakeholders in a joint commitment to promote bioenergy for sustainable development. The Partnership focuses its activities in three strategic areas: Sustainable Development - Climate Change - Food and Energy Security <http://www.globalbioenergy.org/>

BIOMASS MAGAZINE – A World of Biomass at your fingertips
<http://www.biomassmagazine.com/index.jsp>

FRIDAY OFFCUTS - the leading weekly electronic newsletter that goes out to New Zealand and Australian forestry, wood products and paper companies.
<http://www.fridayoffcuts.com/index.cfm>

ETHANOL PRODUCER MAGAZINE – The World of Ethanol at your fingertips
<http://www.ethanolproducer.com/>

BIODIESEL MAGAZINE – The World of Biodiesel at your fingertips
<http://www.biodieselmagazine.com/>

BIOFUEL CITIES UPDATE - information on developments in the field and from the Biofuel Cities European Partnership, the multi-stakeholder forum for the application of biofuels. <http://www.iclei-europe.org/index.php?id=7113>

WOOD PELLETS IN NEW ZEALAND - the portal for accessing information on wood pellets production, supply and heater and boiler equipment www.woodpellets.org.nz

BIOENERGY KNOWLEDGE CENTRE – The portal for accessing information on wood energy fuel and utilisation www.bkc.co.nz

LIQUID BIOFUELS IN NEW ZEALAND – the portal for accessing information on liquid biofuels opportunities in New Zealand. www.liquidbiofuels.org.nz

BANZ Interest Groups – Update

The FOUR BANZ Interest Groups are now well established with Committees meeting every couple of months. The groups are as follows:

- Biogas Interest Group
- Liquid Biofuels Interest Group
- Wood Pellets Interest Group
- Wood Fuel Interest Group

If you are interested in being a member of a specific Interest Group please contact Connie.crookshanks@bioenergy.org.nz.

• **Biogas Interest Group (BIG)**

The Biogas Interest Group met last on 24 February. The Group is focussing on gathering information for the development of a dedicated biogas web-site.

The Group is also seeking information on biogas projects in New Zealand so that it can establish the current generation output related to biogas.

The development of a dedicated Biogas web-site has been approved by the BANZ Board.

If you have any details on biogas projects or studies in New Zealand please send them to [Connie Crookshanks](#).

• **Liquid Biofuels Interest Group (LBIG)**

Last year the BANZ Liquid Biofuels Interest Group merged with the Biofuel Manufacturers Association. Andre Hamman (ex-Treasurer for the BMA) is the LBIG Convener. The Groups has been busy with several press releases, the Liquid Biofuels Workshop (March 2009) and the development of a 'Position Statement' on Liquid Biofuels with its subsequent submission to the Minister's Office. The next step will be to secure a meeting with the Minister.

EECA have also supported the development of liquid biofuel web-pages within the BANZ web-site and the production of four dedicated liquid biofuels newsletters – 'There have been two issues of 'LiqBio' so far.

Key links as follows:

- [LBIG Position Statement](#)
- [BANZ Liquid Biofuels Workshop - Presentations](#)
- [EECA Liquid Biofuels and Electric Vehicles Conference](#)
- [LiqBio – BANZ liquid Biofuels Newsletters](#)
- [Liquid Biofuels Press Releases](#)

Further details on each of the Interest Groups can be found on the BANZ web-page and in the Member's Only Area. Contact [Connie Crookshanks](#) if you need a reminder of your username and password for the Member's Only Area.

• **Wood Pellets Interest Group (WPIG)**

The WPIG met last on 31 March 2009. The group is focussing on gathering information about pellets use in the commercial and residential market and efforts to grow the market share for heating. A draft programme for a Wood Pellets event rescheduled to early July has been developed with final amendments now required. The group has also been providing input into the Wood Fuel Classification Guidelines and has proposed the details for three key categories for Wood Pellets:

- Category A - premium pellets, residential use (eg domestic home heating)
- Category B – premium pellets, commercial use (eg school boilers)
- Category C – industrial grade pellets

Discussion also focussed on the need for pellet producers/suppliers and technology/equipment suppliers/developers to be working together to grow the market.

• **Wood Fuel Interest Group (WFIG)**

The WFIG met last on 16 April. Discussion at the Group meeting focussed on the Wood Fuel Classification Guidelines which are currently in draft. The Guidelines are with the Group for comment at present.

The WFIG has prepared a draft programme for a workshop and a series of site visits on 2nd August this year. Details will be on the BANZ web-site in the coming weeks. The Event is titled, "New Zealand Wood Energy Resource" – with a key focus on the Wood Fuel Classification Guidelines.

The Wood Fuel Trading Bulletin Board will soon be available on the Bioenergy Knowledge Centre web-site.

Interest Group Committees and next Meetings:

Biogas	Liquid Biofuels	Wood Pellets	Wood Fuel
Next meeting – 4 th June	Next Meeting – 2 nd June	Next Meeting – 1 st June	Next Meeting – 22 nd June
Committee	Committee	Committee	Committee
Guenter Wabnitz (Convener)	Andre Hamman (Convener)	Brian Cox (Convener) (temporary)	Rob Mallinson (Convener)
Bob Weston Jurgen Thiele Stephan Heubeck Tony Rhodes Rocky Renquist Humphrey Archer Siegfried Zoellner Andrew Thorp Attilio Pigneri	Andrew Simcock Attilio Pigneri Richard Gapes Gary Brockett Jurgen Thiele Simon Coughlan Tony Lough Jim Watson Tissa Fernando Peter Motion Sean Simpson Karl Mischewski Roger Williams	Paul Coughlan George Escourt Peter Kernohan Bruce Clow Eduard Ebbinge Peter Butler Bevan Frost Ian Charity Andrew Wilson Trevor Hale Kirk Archibald Murray Cowan	Allan Escourt Bruce Clow Duncan Mackenzie Eduard Ebbinge Richard Gapes Grant Smith Lyndon Haugh Kirk Archibald John McArthur Michael Jack Murray Cowan Peter Welr Peter Hall Philip Gedye Rens Bosman

New Zealand News Briefs

- Biodiesel at the Pump—Mobil first
- E85 is all go
- Running on Biogas – Christchurch new Civic Offices and Art Gallery.
- “Some 40 million litres—or approaching 40 million litres—of biofuel will be produced in New Zealand this year” – Minister claims.
- Grant boost for New Zealand biodiesel
- Bio diesel first for New Zealand championship – NZ Rally
- Carbonscape leads the world on Climate Change solutions
- SIX new Wood Chip Boilers through the EECA Renewable Heating for Schools Programme
- Biofuel-powered around-the-world record-holder visiting southern ports
- EECA Wood Energy Grant Scheme – Current Funding Round

Biodiesel at the Pump—Mobil first—March 2009—Renewable transport energy in New Zealand is making progress, with biodiesel now on retail sale and approval granted for 85% ethanol blends in petrol. Mobil has become the first company in New Zealand to sell a biodiesel blend at the Pump. The B5 blend (5% biodiesel blended with ordinary mineral diesel) went on sale on a trial basis in the Bay of Plenty region. The biodiesel in Mobil’s B5 blend is sourced from tallow, a by-product of meat processing. More details [here](#).

E85 is all go—March 2009—Ethanol-blended petrol is already on sale in New Zealand, but now another renewable biofuel choice is possible after the Environmental Risk Management Authority (ERMA) approved an application from EECA to allow E85 (an 85% ethanol blend with 15% petrol), with controls. More details on the ERMA decision to approve the application can be found [here](#).

Running Christchurch’s new civic offices and art gallery on bio-gas, which will save \$2.3 million a year, has earned the city council an environmental tick – more details [here](#).

“Some 40 million litres—or approaching 40 million litres—of biofuel will be produced in New Zealand this year” – Minister claims. In the 7th April Questions to Ministers, Minister Gerry Brownlee claimed that despite the removal of the Biofuel Sales Obligation New Zealand’s Biofuels Sector is ‘Growing and thriving’, adding to this that “Some 40 million litres—or approaching 40 million litres—of biofuel will be produced in New Zealand this year”. BANZ is currently investigating the source behind these numbers. More details [here](#).

Grant boost for New Zealand biodiesel – In February, Minister Brownlee signalled forthcoming announcements that are likely to equalise the tax treatment of bio-diesel and bio-ethanol, because the different treatments were illogical and potentially New Zealand bio-diesel producers while favouring imports of bio-ethanol. The 19th May announcement of a biodiesel grant scheme is welcome news for the industry. Further info as follows:

- Biodiesel Grant Scheme [Press Release](#);
- Biodiesel Grant Scheme [Details](#);
- BANZ Press Release – Biodiesel Grant Scheme – [:Biofuels “boost” welcomed – it’s the strong signal that will give the sector the confidence it needs to grow” – 20 May 2009.](#)
- Details of the BANZ [Position Statement](#) on Liquid Biofuels.

Bio-diesel first for New Zealand championship – NZ Rally - Leading the way for competition using environmentally friendly energy, Rangiora’s Matt Summerfield has the honour of starting this weekend’s opening round of the Vantage New Zealand Rally Championship as the first team to use bio diesel as a fuel. Biodiesel is supplied by Rangiora based company - Kiwifuels, a More details [here](#).

Carbonscape leads the world on Climate Change solutions - A New Zealand company's carbon-capturing innovation is one five finalists in the Financial Times UK's global Climate Change Challenge. Carbonscape's Black Phantom charcoal generator has made the Climate Change Challenge shortlist from a pool of 300 applicants around the world. Carbonscape director Nick Gerritsen said that making the final five shows that New Zealand companies have the capability to develop the next round of climate change solutions for the world. He says that Carbonscape is presently seeking to maximise the value of biomass by using it to produce high-value products, such as bio-oils used in the cosmetic industry and activated charcoal. More [here](#).

EECA Wood Energy Grant Scheme – Current Funding Round - The Wood Energy Grant Scheme offers funding to those interested in using and providing wood residue (chips, pellets, demolition timber, hog fuel etc.) as an energy source. The Scheme is targeted at both energy users such as those with heat energy plants, and those seeking to supply such plants with woodfuel. We also encourage Expression of Interest from those contractors, and harvesters seeking to invest in technologies to recover forest residual for energy purposes. Funding available for Business Grants: Business Grants for capital/demonstration projects may be up to 40 per cent of the capital cost of the project, with a minimum of \$10,000 and maximum of \$200,000. **Responses due - Friday, 29th of May 2009 at 5:00 pm. Contact** Mark Windsor or Kirk Archibald (Tel: 09 374 3803 or 09 374 3804 Email: woodenergy@eeca.govt.nz)

SIX new Wood Chip Boilers through the EECA Renewable Heating for Schools Programme –

Living Energy is pleased to report that they have successfully commissioned four fully-automated wood-chip boilers



in the last 3 weeks. These boilers are all at schools in the chilly South Island, so needed to be up and running by the beginning of the school Term 2 (Monday 27th April), which was achieved ahead of time. Rob Mallinson, Living Energy’s MD, said “We’re delighted that these wood chip boilers were all commissioned ahead of schedule and are all running smoothly - and are providing schools with heat from locally-sourced wood fuel.” Living Energy have entered heat supply agreements with the schools, so manage the wood fuel supply and boiler maintenance. The schools just purchase heat by the unit, on a monthly basis. Rob added “We are firing up 2 more boilers in the North Island next week and believe that these 6 wood chip boilers will provide great demonstration sites for other potential customers. We are very thankful to EECA’s Renewable Heating for Schools programme which

provided assistance to these projects”.

Biofuel-powered around-the-world record-holder visiting southern ports - Biodiesel New Zealand and Ecodiesel have been supplying fuel for the southern leg of port calls by Earthrace, the biodiesel powerboat which made a record-setting global circumnavigation in 2008. More details [here](#) and [here](#).

What’s new on the BKC?

- **New Case Studies / Reports**
- **Wood Trading Platform**

New Case Studies / Reports on the Bioenergy Knowledge Centre include the following:

- *Future Heating Options – Landcare Research Building*

- *Commercial Building Heating Operations – Mt. Difficulty Wines*
- *Wood-fired gasifier under the spotlight - Canterbury Clay Bricks*
- *Storage Guidelines for Wood Residues for Bioenergy*
- *Transport Guidelines for Wood Residues for Bio-fuels*
- *Replacement of a diesel boiler with biomass at Paraparaumu Sewage Plant*
- *Feasibility study to assess the biomass resource arising from street/park maintenance within the Manakau City Area and its suitability for use in Council heating and/or cooling applications*
- *Dairy Farm - Feasibility Study for Wood Chip Boiler Purchase*

Future Heating Options (30 March 2009) – The **Landcare Research** space heating is currently derived from coal boilers that are located at the Crop and Food facility. The desire to pursue a carbon neutral fuel that is in line with their policy, along with improving the level of heating that is currently available from the current system, are the key drivers for this feasibility study. [Download full report](#)

Commercial Building Heating Operations (18 March 2009) – **Mt Difficulty wines considers a replacement boiler system** - A feasibility study to investigate the most appropriate heating option for Mt Difficulty Winery was undertaken by Transitionz Group Limited under the Energy Efficiency and Conservation Authority's (EECA) Wood Energy Grant Scheme. Mt Difficulty is in the early stages of expanding the winery and it was identified that the current heating system was not suitable and a replacement system is being reconsidered as part of the expansion. The study looks at several technologies, solar hot water, ground-source heat pumps and wood pellet and chip boilers, to replace the current gas boiler system. [Download full report](#)

Wood-fired gasifier under the spotlight (12th October, 2008) - **Canterbury Clay Bricks** (CCB) considered installing a wood-fired gasifier to heat their kilns and found that it didn't stack up economically - but it could be an option in the future. CCB manufactures clay bricks with a tunnel kiln fired with used oil and some diesel. The company is installing a second kiln and is looking at alternative, low-cost fuels to reduce their overall fuel bill. A wood-fired gasifier was one option investigated in a feasibility study by the Centre for Advanced Engineering New Zealand. The study found that switching from gas to gasified wood isn't currently economical, due to the low cost of its current used oil and the relatively high price of wood fuel used in the study. The annual savings from switching to producer gas are about \$75,000. Along with the start-up investment of \$1.3 million, the study found that the payback period would be more than 15 years.

The study also considered whether carbon credits would make a gasifier more cost effective. Credits could help reduce the overall cost but the payback period would still be more than 8 years. However a gasifier would increase health and safety and operational requirements and would also make the plant more flexible as it could run on either gas or liquid fuels. There would also be marketing opportunities from using a renewable fuel. [Read the full case study](#)

Storage Guidelines for Wood Residues for Bioenergy (2009) - Forestry and wood processing residues are a potentially significant source of bio-energy fuels. For a variety of reasons storage of these materials prior to utilisation is often necessary. The storage of comminuted (chipped, hogged, shredded or reduced to small particle size by other means (sawing or sanding)) biomass, particularly fresh (green) material such as logging residues can lead to degradation of the fuel due to biological and thermo-chemical processes. [Download full report](#)

Transport Guidelines for Wood Residue for Bio-fuels (2009) – In any system for delivering wood residue as bio-fuels from forests or wood processing sites, transport is a key factor and contributes significant cost. Transport cost as a percentage of delivered cost can vary from ~12% (5 km haul) to ~60% (150 km haul) depending on the transport distance. Optimising transport systems on medium (50 km) to long (100 km) haul transport is therefore critical to minimising costs. [Download full report](#)

Replacement of a diesel boiler with biomass at Paraparaumu Sewage Plant (Sept 2008) - The conversion of the Paraparaumu Sewerage Sludge Drying Plant from diesel to wood will offer Kapiti Coast District Council the opportunity to slash its fuel costs at the site from the current level of around \$575,000 in 2008, to as low as \$115,000 in the first year of operation..read more [Download full report](#)

Feasibility study to assess the biomass resource arising from street/park maintenance within the Manakau City Area and its suitability for use in Council heating and/or cooling applications (Sept 2008) - Within its property portfolio, Manakau City Council has a range of premises, predominantly swimming pools, which are suited for conversion to wood as the principle source of heat energy. Such a move would bring both cost savings and improved environmental performance, whilst at the same time retaining value from the Council's expenditure on energy in the local economy [Download full report](#)

Dairy Farm - Feasibility Study for Wood Chip Boiler Purchase (Dec 2008) - This report has been commissioned by Murray Cowan of Bio-Energy Equipment Ltd to ascertain the viability of using a highly automated purpose-built wood chip type Low Temperature Hot Water (LTHW) boiler to provide hot water heating for a dairy

shed wash down along with space heating and Domestic Hot Water (DHW) for nearby farm houses...[download full report](#)

Wood Trading Platform – up and running

Welcome to New Zealand’s first interactive buy and sell website for biomass!

We are all aware that New Zealand has an abundant supply of wood residues but there seems to be a missing link in the chain to connect the producers to woody fuels to those that can use it to produce heat and electricity. This new website will fill that void by advertising nationally all types of woody biomass from forest residue, process waste to recycled timber products.



Bioenergy
Knowledge Centre

Call centre: 0800 BIOENERGY
(0800 240 343)

How to sell or buy wood fuels!

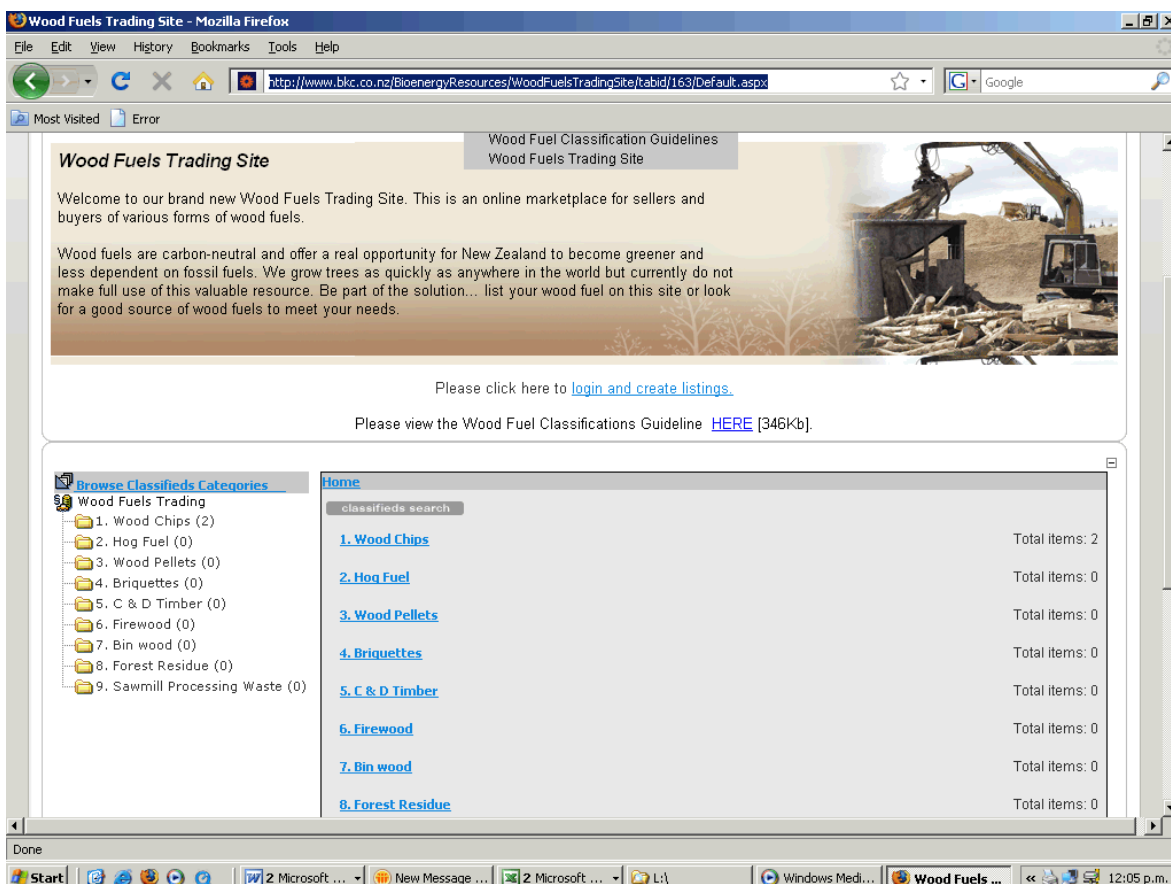
Register at the online wood fuels marketplace:
www.bkc.co.nz

Wood fuels traded on the site include:
Wood chips • Hog fuel • Wood pellets • Briquettes • C&D timber • Firewood • Bin wood
Forest residue • Sawmill processing waste

FREE LISTINGS UNTIL 31 AUGUST!

The trading site incorporates the new standards for wood fuels which are currently under development by BANZ. This provides a stable platform for trade as the new standards will incorporate such fuel characteristics as moisture content, particle size and ash content. Once these characteristics are known the energy value of the material is easily calculated and this is what we are really aiming at – The trade of energy!

For the initial launch period the listing fee will be free to help advertise the new site and also encourage a quick uptake in its use. The site is a part of the BKC website and is accessible through the BKC homepage [here](#).



Wood Fuels Trading Site - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://www.bkc.co.nz/Bioenergy/Resources/WoodFuelsTradingSite/tabid/163/Default.aspx

Most Visited Error

Wood Fuels Trading Site

Wood Fuel Classification Guidelines
Wood Fuels Trading Site

Welcome to our brand new Wood Fuels Trading Site. This is an online marketplace for sellers and buyers of various forms of wood fuels.

Wood fuels are carbon-neutral and offer a real opportunity for New Zealand to become greener and less dependent on fossil fuels. We grow trees as quickly as anywhere in the world but currently do not make full use of this valuable resource. Be part of the solution... list your wood fuel on this site or look for a good source of wood fuels to meet your needs.

Please click here to [login and create listings](#).

Please view the Wood Fuel Classifications Guideline [HERE](#) [346Kb].

Browse Classifieds Categories

- Wood Fuels Trading
 - 1. Wood Chips (2)
 - 2. Hog Fuel (0)
 - 3. Wood Pellets (0)
 - 4. Briquettes (0)
 - 5. C & D Timber (0)
 - 6. Firewood (0)
 - 7. Bin wood (0)
 - 8. Forest Residue (0)
 - 9. Sawmill Processing Waste (0)

Home

classifieds search

1. Wood Chips	Total items: 2
2. Hog Fuel	Total items: 0
3. Wood Pellets	Total items: 0
4. Briquettes	Total items: 0
5. C & D Timber	Total items: 0
6. Firewood	Total items: 0
7. Bin wood	Total items: 0
8. Forest Residue	Total items: 0

Done

Start | 2 Microsoft ... | New Message ... | 2 Microsoft ... | Windows Medi... | Wood Fuels ... | 12:05 p.m.

Liquid Biofuel Events – March 2009

March saw two key events in Wellington:

- The EECA Biofuels and Electric Vehicles Conference
- The BANZ Liquid Biofuels Interest Group Workshop

Further details (including where you can find the presentations from each event) are below:

The EECA Biofuels & Electric Vehicles Conference 2009 was held on 24 March in Wellington, with over 160 delegates attending for the latest on renewable energy for transport in New Zealand.

With a host of key note international speakers presenting during the day, the conference was opened by the Minister of Energy and Resources, Hon. Gerry Brownlee and was followed by Richard Marshall Director Energy & Environment, GM Holden, Australia and Nick Goodall, CEO, Renewable Fuels Agency, UK.

With an average satisfaction rating of 4.2 out of 5 from delegates, the conference was a great success and provided some great global insights and learnings on how biofuels, and electric vehicles are an important part of New Zealand's future. The BANZ workshop the following day was a perfect complement to provide the big picture for biofuels in New Zealand.

For more information on the EECA Biofuels & Electric Vehicles conference go to www.eeca.govt.nz and to find out more about the [speakers](#) and [view their presentations](#).

The **BANZ Liquid Biofuels Interest Group Workshop** was held on 25th March in Wellington with 85 people in attendance. Brian Cox, Executive Officer of the Bioenergy Association and Andre Hamman, Convener of the BANZ Liquid Biofuel Interest Group welcomed delegates to the Workshop.

The theme for the BANZ event was 'quality and standards' with four sessions focussing on regulations and standards, energy crops, conversion technologies and innovation.

Attendees were given a clear message on the evidence of quality required by Gull and the issues around supplying a quality product time and time again on the station forecourt. Attendees were able to hear a range of speakers outline the potential that energy crops ranging from miscanthus to oil seed rape and tallow to willow offered to New Zealand. In the afternoon sessions were presented on the quality and process issues to be considered when producing biodiesel from tallow and the potential of second generation biofuels.

The event was a great success and facilitates (as intended) much discussion amongst key players in the sector. Presentations from the event are available on the BANZ web-site [here](#).

The 'Who's Who in Liquid Biofuels in New Zealand' from the Workshop is available [here](#). Details about a Liquid Biofuels Workshop later in the year will be available soon.

Could wood waste be fuels gold? – Australian CSIRO Report

The CSIRO Energy Transformed Flagship recently completed the wood waste verification project, which aimed to identify both the volumes and types of wood waste being dumped in Australia's landfills and to determine the contribution it could make to our nation's future fuel supplies.

Using our [Australia] total wood waste weight in combination with 2007 data collected by the Australian Bureau of Statistics points to a figure of around 1 781 000 tonnes of wood waste being generated in Australia each year,' Dr Taylor explained.

'If all of this was converted to fuel, it would equate to 534 megalitres or 300 litres of gasoline per tonne of wood, which is approximately 1.8 per cent of Australia's current gasoline usage. 'Although this amount is minor in terms of Australia's total fuel requirements, recovery of a concentrated resource of wood waste material from landfill could supplement other types of biomass found in a region and provide critical mass to support a biofuel conversion facility.

'In addition, wood waste could be used to generate electricity or process heat for manufacturing. For example, some European countries make wood pellets from waste wood that are used to generate electricity for the power grid.'

More details on the CSIRO web-site [here](#) and from the ECOS Magazine [here](#)

[note NZ REBRI information on C&D waste wood - <http://www.rebri.org.nz/links/guidelines/EGRR-Wood.pdf>]

Wood Fuel Classification Guidelines

The first draft of the Wood Fuel Classification Guidelines are with the Wood Fuel and Wood Pellets Interest Groups for comment. If you are interested in participating in the development of these guidelines contact the [Executive Officer](#).

The Guidelines cover the following forms of wood fuel:

1. Wood chip
2. Hog Fuel
3. Wood Pellets
4. Brickettes
5. Construction and Demolition Timber
6. Firewood Logs

The draft Guidelines are currently available for viewing on the BANZ website [here](#).



INTERNATIONAL NEWS

Bioenergy Action Plan for Wales – reducing carbon and generating heat, electricity and new jobs – The Bioenergy Action Plan for Wales aims to generate at least 5 terawatt hours of electricity, about 20% of current needs, from renewable biomass by 2020. It also aims to have biomass provide 2.5 terawatt hours of usable heat energy, about 3% of current needs. This will result in a reduction of about 3 million tonnes of carbon dioxide emissions per year in comparison with generation based on fossil fuels. It will also create new jobs. Further details [here](#).

Algae-to-Fuel Research Enjoys Resurgence at NREL¹, Colorado, USA - Passenger jets cruise at 35,000 feet without a hiccup. Catfish farmers lease ponds to biofuels entrepreneurs. Venture capitalists sink \$1 billion into green crude. Judging by the headlines, can it be long before we're filling our tanks with clean fuel from algae? Record high crude oil prices, instability in the Middle East and other oil exporting regions and global warming concerns connected to increasing levels of carbon dioxide have made algae an appealing potential fuel source — again. Why should it be different this time? More details [here](#).

Bioenergy Boosts Rural Development In Poor Nations – Although the bioenergy debate has centered on liquid fuels used for transport, over 80 per cent of bioenergy used involves other sources, mainly wood, that are used for household cooking and heating in the world's poorest areas. A study – published jointly by the UN Food and Agriculture Organization (FAO) and the United Kingdom's Department for International Development (DFID) – says that concern over the impact of transporting the biofuels on the environment, water resources and food security has obscured bioenergy's many positive benefits for poor people in rural areas. More details [here](#).

ISO 'Sustainability criteria for biofuel' meeting. This meeting will be held 8th and 9th June 2009 in Berlin, Germany. Standards New Zealand is seeking representation for the meeting from New Zealand.

EVENTS CALENDAR:

New Zealand Events:

¹ U.S. Department of Energy's [National Renewable Energy Laboratory \(NREL\)](#).

- **EECA EnergyWise Awards** – 21 May, Auckland. For tickets and details - awards@eeca.govt.nz or call Rebecca Rix on (04) 470 2216.
- **RESIDUES TO REVENUES 2009 - New Technologies to Improve Wood Wastes Utilisation**, 10-11 June 2009, Rotorua, New Zealand, www.woodresidueevents.com

BANZ 2009 Events – COMING SOON

- **Workshop - Wood Pellets in Commercial / Institutional Applications** – 7 July 2009 (provisional).
- **Workshop and Site Visits – New Zealand’s Wood Energy Resource** – August 2009 (over two days).

Coming Soon

- **BANZ Board Meeting** - The next meeting is scheduled for **9 June 2009**.
- **Bioenergy News – next issue** - (July 09)
- **LiqBio** – next issue – (August 09)



The Bioenergy Association of New Zealand Inc. (BANZ) comprises companies, research organisations and individuals who have an interest in markets for converting biomass or biomass residues into energy. To receive this newsletter regularly contact the Executive Officer of BANZ for membership details by email: info@bioenergy.org.nz. Back issues of this E-zine are on the website, www.bioenergy.org.nz