



Dear Bioenergy Association Members and friends

Welcome to BANZ BIO-FLASH.

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Bio-Flash Headline

NZ Bioenergy Strategy – Workshop Report back and Draft Strategy:

A joint Bioenergy Association and Forest Owners Association Conference held in Wellington this week attracted just over 100 delegates. Delegates represented the forestry sector, biofuel manufacturers, wood fuel retail and wholesalers, biogas experts, biomass and heat technology experts, government officials, consultants and investors. Presentations from the workshop are available on the BANZ website [here](#).

A 'Picture of the Bioenergy opportunities in New Zealand' is available on the BANZ web-site [here](#) with the Strategy itself in development this month. BANZ expects the Draft Strategy to be available by the end of February. The proposed Strategy is about better utilising a large indigenous resource that is being ignored. In the short term bioenergy can supply cost-effective heat to all

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users, and can convert industry and council waste streams to valuable fuels – which will create jobs and help to protect our threatened lean image. In the medium to long term bioenergy can avoid the need to import a good portion of the \$5.8 billion of oil per year, and can offer large export opportunities through liquid and densified fuels to other countries which aren't so blessed with bio-feedstock. The value proposition for New Zealand is strong and robust, and we need to convey this better to business. This is an industry lead initiative with Government support.

One outcome of the workshop is that it is clear that a Bioenergy Strategy needs to be integrated with strategies for the forestry and wood processing sector, biochemical and biomaterials sector, and landowners. It is also multi feedstock, produces energy for use in heat production and transport fuel (biodiesel, bioethanol, biogas) and has a number of potential pathways. However the big opportunity in energy terms achievable by 2040 is the production of up to 30% of our transport fuels.

A draft vision for the sector is

“A nationally significant bioenergy business sector, built on New Zealand’s capability and expertise in growing and processing wood-crops and converting organic by-products to energy, which by 2040 supplies more than 25% of the country’s energy needs, including 30% of the country’s transport fuels.”

Click [here](#) to download a copy of the press release issued by the BANZ Chairman at the end of the above workshop.

General Bioenergy News

IEA TASK 40 – Sustainable International Bioenergy Trade

BANZ has recently been contacted by this IEA Task Group which conducts studies and organizes events on various topics related to sustainable international bioenergy trade. Useful Publications from their activities as follows:

- The study [“2nd Generation Biofuels and Trade”](#) explores the potential supply and demand of 2nd generation liquid biofuels up until 2030, and discusses various impacts on liquid biofuel trade, ranging from cost advantages over shipping capacities and routes to policy impacts. It is an explorative study, highlighting the possible effects of large scale market penetration of lignocellulose-based transport fuels, but also highlights the large number of variables and uncertainties determining these developments. Also the impact of the global recession and the role of bio-refineries are briefly discussed.
- In between July and September 2009, all Task 40 member countries have published [updated country reports](#). These reports contain a wealth of information, including state-of-the art overviews of domestic biomass resources, production potentials, policies, and especially international bioenergy trade.

- Task 40 commissioned a study on a [global overview of bio-oils \(vegetable and palm oil\)](#) to:
 - i. assess major producers and consumers of vegetable oils;
 - ii. main emerging markets;
 - iii. analyze main policy drivers;
 - iv. assess future trends (palm, soybean, rapeseed oils).

The [bioenergy maritime shipping study](#) describes main properties of biofuels in relation to maritime shipping, examine current shipping lanes and major tradable biomass sources, capacities, costs and obstacles, together with other factors that will influence future liquid biofuels shipping opportunities.

- Task 40 is currently investigating the opportunities and boundary conditions to set up a bio-trade fund. Such a bio-trade fund could potentially unlock sources of biomass and lay the groundwork to meaningfully increase biomass trade, while providing socio-economic benefits and lowering biomass prices. Publication is expected in March 2010.
- A study on barriers and opportunities for bioenergy trade which investigates the importance of tariff barriers, technical standards, sustainability criteria, underdeveloped logistics and other possible issues hampering or stimulating international bioenergy trade is currently being finalized. The Group is currently also finalizing a paper comparing and analyzing ongoing biomass sustainability certification initiatives (up until the end of 2009), including differences and similarities between the various approaches. Both papers will be submitted for publication in a scientific journal.

(All reports are available for free at the Task 40 [bioenergy maritime shipping study](#). You can also simply click on the links to download the studies directly.)

Liquid Biofuels – Issues of Interest

- ❖ **BANZ Liquid Biofuel Annual Workshop “Liquid Biofuels in New Zealand – Emerging Opportunities, Sustainable Development and Increasing Availability” held on 22nd April 2010, Renouf Foyer, Wellington Convention Centre, Wellington:**

As was the case last year, this event is back to back with the Annual EECA Biofuels and Electric Vehicles Conference. Click to download Programme and Registration form.

- ❖ **EECA Biofuels and Electric Vehicles Conference:**

This EECA annual conference is New Zealand's principal industry conference on biofuels and electric vehicles, and is an opportunity for the industry to come together to discuss the state of play on renewable transport in New Zealand, and overseas. The theme this year is 'Growing the

market'. A fee reduction is available of booking BOTH the BANZ and EECA events. See [here](#) for EECA event details

❖ **KEA New Zealand Bio Diesel Project:**

After a year of evaluation and testing, KEA Campers is successfully running their Auckland airport transfer coach on 100% biodiesel. Using the company's Auckland airport transfer coach has been perfect for this project for two reasons: Firstly they could provide a positive first and/or last experience to their customers as their travel to and from the airport would be 100% on non fossil fuel, and secondly, the vehicle runs in a controlled environment from the KEA depot back and forward to the Auckland Airport, doing approximately 60,000 kms per year – allowing ample opportunity for testing.

In July 2009 they set up their own fuel tank and started at a 20% blend of biodiesel and 80% diesel, and in September increased this to 50% of each. Throughout this time they have been conducting fortnightly oil testing to ensure engine wear is not adversely affected by the biodiesel. In the medium term, KEA would like to fuel more company vehicles on biodiesel and in the longer term hope to use biodiesel in some of their rental fleet. **[Editors note – 'Clean Green New Zealand' in action]**

❖ **Struggling US Biodiesel Producers face Ruin:**

The US biodiesel industry is expected to collapse without the federal tax credit. Note- US biodiesel production in 1999 was 500,000 gallons. In 2009 the volume was 300-350 million gallons (1 gallon = 4.5 litres). See [news article](#).

❖ **British Airways Deal For UK Biofuel Plant Takes Off:**

British Airways is to use millions of gallons of jet fuel made from waste food in a deal that will create more than 1,000 jobs in the UK. Around 500,000 tonnes of waste material a year will be used to produce 16 million gallons of fuel at the site in east London. BA has teamed up with American bio-fuel firm [Solena](#) to build the plant, which will be selected from a short-list of four brownfield sites. Work is scheduled to start within the next two years once planning consent is granted. The plant will create up to 1,200 jobs. The airline said it would produce double the amount of fuel needed for all its flights from London City Airport. Collection will be co-ordinated by the Foodwaste to Fuel Alliance, which will bring together developers, food producers and energy companies. More [here](#).

❖ **Converting Australian sugar cane into renewable jet fuel:**

Amyris Biotechnologies and the University of Queensland have signed a research agreement to explore the conversion of Australian sugar cane into renewable jet fuel. Under the agreement, scientists at Amyris and the Australian Institute for Bioengineering & Nanotechnology will collaborate on synthetic biology that will develop yeast cells to convert sucrose into fuels for the sustainable aviation movement. More [here](#).

❖ **UK's RTO meets its target but falls short on sustainability reporting:**

The UK the government is reporting that, under the Renewable Transport Fuel Obligation, biofuels accounted for 2.7 percent of the UK's fuel consumption in 2008/2009. The RTFO target had been 2.5 percent, and will rise progressively until reaching 5 percent in 2013/14. More [here](#).

❖ **Flambeau River Biofuels in the US:**

have signed a letter of intent to build what is believed the largest second-generation green diesel plant in the US. The project will cost some US\$250 million and is partially funded by the US Department of Energy. It is planned to be operational by 2013. The facility will use a patented process from ThermoChem Recovery International and will convert an average of 1,000 tons of wood residue per day into electricity, steam and heat for processing into biodiesel.

Biogas – Issues of Interest

❖ **Powered by waste:**

A Marlborough wine producer has successfully converted a tractor to run on a completely free, renewable biofuel from its own vine prunings.

The New Zealand Wine Company, which produces the Grove Mill label, decided in early 2008 that the rising cost of diesel warranted a look at other options. It commissioned a prototype tractor to run through 'gasification' — a process where biomass is partly combusted to create a gas which can be used for fuel. More [here](#).

❖ **Greenlane Biogas excels overseas:**

The December 2009 issue of the Flotech Newsletter presents recent successes of Flotech on the international biogas scene – see [here](#) for more details.

❖ **BANZ Biogas Workshop – Municipal Solid and Liquid Waste – 13th May 2010, held in Christchurch:**

The BANZ Biogas Interest Group presents this workshop in Christchurch to showcase NZ's biogas skills and generation potential learning from NZ experts and generation sites around the country. Contact admin@bioenergy.org.nz for more details.

Wood Fuels –Issues of Interest

Wood Fuel BOOM in Scotland:

The use of wood for heating in the Scotland has boomed in the past few years with figures from the Forestry Commission showing demand for wood fuel has trebled over the last four years and is expected to rise from the current figure of 660,000 tonnes to 1.5 million tonnes by 2012. The Scottish Government has set a target of 11% of all heating to come from renewable sources by 2020; the figure currently is 1.4%.

❖ EECA Wood Energy Seminars –

These seminars provide an overview of the technical considerations for using wood energy for industrial and commercial heat requirements. Wood energy is gaining popularity for industrial and commercial heat requirements as businesses look for alternatives to traditional fossil fuels - either based on price or environmental benefits, such as improved air quality. Technology advances means that wood can provide large amounts of heat very efficiently and with little operator input. More details [here](#). This practical seminar has 4 parts and where possible will include case studies of businesses using wood energy:

- 1) Wood as an energy source
- 2) Understanding wood fired boiler technology
- 3) Determining the feasibility of the project
- 4) Wood energy supply

Who should attend? - Consulting and process engineers; Facilities managers who operate heat plant

Auckland, 22nd March 2010, 9am-3pm

Dunedin, 25th March 2010, 9am-3pm

Christchurch, 26th March 2010, 9am-3pm

For questions, please contact Ting Liu, EECA Business Team Administrator on 09 374 3800

❖ BANZ Wood Fuel Tour/Workshop Event – Heating with Wood Chip – A showcase study tour of modern wood chip boiler installations and their supply chains, 6 – 7 May 2010:

The focus for this event is on the increasing supply and use by schools, hospitals, other commercial buildings and manufacturing operations of wood chip and wood pellet boilers. Those using wood

outside the industry along with those supplying the woody biomass and the boilers will be involved in showing you that wood fuel is now a main stream heating source.

This 2 day show case tour is designed to provide anyone who is considering installing a new boiler with an in-depth appreciation of the operation of modern wood chip boilers and their ease of use. Six different types of European wood chip boilers will be visited, covering the entire range that are available in New Zealand. Some pellet boilers will also be visited. The wood chip boilers are providing space heating, domestic hot water and process heat to schools, a university, a hostel and a winery. The tour will start in Dunedin for the first day and end in Queenstown on the second day.

[Programme](#).and [Registration form](#)

Further details on the BANZ webpage [here](#).

❖ **Woody Biomass and Direct Heat Sector Profile:**

BANZ is pleased to announce the development of a comprehensive profile of the woody biomass and direct heat sector profile. Development of this profile presents those key players in the sector with an opportunity to promote their skills and knowledge, technologies and processes to New Zealand and overseas audiences through promotion on the BANZ web-sites. Over the next couple of weeks BANZ will be contacting key players in the sector with the request to complete a profile template of their company / organisation details. The sector targeted consists of the following:

- Fuel Producer (hogger, wood processor)
- Fuel Wholesaler
- Fuel Retailer
- Wood Fuel consultant, researcher, training provider
- Wood Fuel equipment supplier (eg plant construction and design, burners, heaters, hoggers, fuel handling equipment)

BANZ would like to acknowledge EECA funding for this initiative. If you would like further details please contact admin@bioenergy.org.nz.

Wood Pellet –Issues of Interest

❖ **Canadian Pellets GO LARGE:**

General Biofuels Canada has announced plans for a 500,000 tonne per year wood pellet facility in British Columbia. The company plans to export the pellets to Asia and Europe to replace coal fired power stations. More [here](#).

❖ **NZ Wood Pellets Travel Overseas:**

Next month sees the opening of the Nature's Flame Taupo Plant – Pellets from this plant are destined for overseas markets. More coming soon.

❖ **Wood Pellet Installer Course:**

Confirmed now to go ahead and due to commence in June through Wairiki Polytech. For more details contact admin@bioenergy.org.nz

❖ **Wood Pellet Boiler Operator Course:**

The Wood Pellet Boiler Operator Course has been developed with a number of boiler manufacturers, fuel suppliers and consultants to assist Boiler Operators or Property Managers and to safely operate their boilers to get optimal energy from them. The course is 'generic' in nature (not focused to any boiler make or design), specific to wood pellets, and focused on ensuring that generally untrained operators are conversant with design and operating principles adequate to ensure safe boiler operation. Initial course are focused on boilers in use in schools. The next course is 26th May in Rotorua at Rotorua Girls High School. Limited to 15 places. To book a place contact admin@bioenergy.org.nz

❖ **Guidelines for the Conversion of Solid Fuel Boilers from Coal to Wood Pellet Firing:**

This BANZ Technical Guide has been developed to provide guidance on the conversion of existing coal fired boilers to wood pellet operation. The 1st Draft of this document is available on the BANZ web-site [here](#).

Details of all the Training / Guidance Documents initiatives can also be found on the Wood Pellets web-site - www.woodpellets.org.nz

***BIO-FLASH** is brought to you as a BANZ Initiative to improve communication throughout the bioenergy sector. The BIO-FLASH will be produced roughly fortnightly to give quick news headlines on recent and current activities and links to where the news can be read in greater depth.*

We welcome your contributions and will also include paid product and service announcements. If you have something that you would like others to know about then let us know.

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Brian Cox
Executive Officer, Bioenergy Association of NZ

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