

Protocol for Listing of Who's Who on the BANZ Industry Website

Members of the Bioenergy Association obtain free listing on the main Association website www.bioenergy.org.nz Members details are also listed on the Interest Group web-site of their choice and we are reviewing these at present. (Our priority is to ensure the main BANZ website Member details are up to date.)

BANZ profiles its members as this is one way of demonstrating the competence and capabilities of the industry. It also distinguishes members from non members. The format for listing is dependent on the level of membership.

BANZ is an industry association so its primary focus is to assist the business aspirations of its members. Individual membership is essentially only for the public who have an interest in bioenergy but are not in business, and Associate membership is for small businesses or businesses who may have only a minor involvement in the bioenergy sector.

BANZ activities are primarily focused on its Ordinary Members and Corporate Members so if you are serious about being involved in the bioenergy sector you should look to being in one of these categories of membership. An Individual Member gets essentially the newsletter and not much else.

BANZ Membership List

All categories of Member are listed in a downloadable BANZ Members List.

BANZ Who's Who Directory


Members who are Ordinary Associate Members and above are given greater profile as they will be listed and visible on various parts of the web-sites appropriate to their category of membership.


Individual Member (\$100 per annum excl GST)
No listing on the website other than in the downloadable BANZ Members List.

Associate Membership (\$250 per annum excl.GST)	
Name listing on the BANZ Members List and the web page Who's Who Directory. Listing on <u>one</u> Interest Group web-page. The name listing will include only a contact email address. Company website and Logo will not be shown in the Directory. No link to Member Profile to be shown.	
East Harbour Energy	www.eastharbour.co.nz

Ordinary Membership (\$500 per annum excl.GST)		
Name listing on the BANZ Members List and the web page Who's Who Directory. Listing on <u>two</u> Interest Group web-pages. The name listing will include a link to the member's own website or email address. The Company Logo will be shown in the Directory. A one line promo will also be shown in the Directory.		
RCR Energy Ltd.	Philip Gedye	
	www.rcrenergy.com	
RCR Energy is a leading supplier of energy equipment systems to industry in Australasia.		



Ordinary Corporate Membership (\$2,000 per annum excl.GST)		
<p>Name listing on the BANZ Members List and the web page Who's Who Directory. Listing on <u>three</u> Interest Group web-pages. The name listing will include a link to the member's own website or email address. The Company Logo will be shown in the Directory. A paragraph promo will also be shown in the Directory and Who's Who..</p>		
<p>LanzaTech NZ Ltd <u>Brief Company Profile</u></p>	<p>Sean Simpson, CSO www.lanzatech.co.nz</p>	
<p>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.</p>		

Full Corporate Membership (\$5,000 per annum excl.GST)		
<p>Name listing on the BANZ Members List and the web page Who's Who Directory. Listing on <u>four</u> Interest Group web-pages. The name listing will include a link to the member's own website or email address. A 200 word Company Profile (<u>Brief Company Profile</u>) will be linked to the summary table. A paragraph promo will also be shown in the Directory and the Who's Who.</p>		
<p>Energy for Industry <u>Full Company Profile</u></p>	<p>Grant Smith www.energyforindustry.co.nz</p>	
<p>Energy for Industry (EfI) is a leading energy and utility solutions business. EfI can run or own your energy and utility plant, help you to improve energy efficiency and manage external fuel supply. This can involve for instance heat or refrigeration facilities and waste water treatment and, in some cases, small power generation plants. We work with you to ensure best practice performance in the use of energy and utility services, which might involve us fully funding energy improvement projects and sharing the savings with you. The aim is to develop a total energy and utility partnership on a long-term basis.</p>		

Sustaining Membership (\$7,000 per annum excl.GST)		
<p>Name listing on the BANZ Members List and the web page Who's Who Directory. Listing on <u>four</u> Interest Group web-pages. The name listing will include a link to the member's own website or email address. The Company Logo will be shown in the Directory. A detailed Company Profile (<u>Detailed Company Profile</u>) will be linked to the summary table. A paragraph promo will also be shown in the Directory and the Who's Who.</p>		
<p>Solid Energy <u>Full Company Profile</u></p>	<p>Andy Matheson www.solidenergy.co.nz</p>	
<p>Solid Energy is a major New Zealand energy company and a leading producer of high quality coal for export and for New Zealand markets. We invest in research and commercialisation of new sustainable forms of energy that use coal and in renewables, such as biomass and biodiesel, that help New Zealand in the transition to clean, affordable and renewable energy forms. We are committed to achieving a positive net effect on the New Zealand business environment across all our businesses.</p>		


Company Profiles

A Company Profile may be a brief summary of the business or a detailed full one page summary. The profiles will be stored on the Who's Who Directory and can be linked to Interest Group web-sites. Examples of the two types of profile are set out below.

Company Profile (full)

<p>Company Name and Contact Details:</p>	
<p>LanzaTech NZ Ltd Sean Simpson, CSO www.lanzatech.co.nz Barbara@lanzatech.co.nz + 64 (0) 9 373 4929</p>	<p>Core Skill(s):</p>
<p>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.</p>	<ul style="list-style-type: none"> • Fermentation Technology • Technology Innovation • Plant Design • Waste to Fuel generation
<p>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.</p>	<p>Biofuel Focus:</p> <ul style="list-style-type: none"> • 2nd generation Biofuel
<p>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.</p>	<p>Core Product/Activity:</p> <ul style="list-style-type: none"> • Biofuel from biomass syngas • Biofuel from industrial waste gas feedstocks
<p>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. 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.</p>	<p>Key Project Activities:</p> <ul style="list-style-type: none"> • Pilot plant – Auckland Steel Mill
<p>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.</p>	<p>Leading Edge:</p> <p><i>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 on those that are available in high volumes, are low value and are non food (e.g. municipal waste, organic industrial waste (tyres), waste wood).</i></p>
<p>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.</p>	<p>Investment Base:</p> <ul style="list-style-type: none"> • US Investors • NZ Investors
<p>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.</p>	<p>Employees:</p> <ul style="list-style-type: none"> • 24 skilled (Degree level and above) • 2 part-time (Degree level) • 1 Master student
	<p>Production Capacity:</p> <p>n/a (Process in development)</p>

Company Profile (brief)

<p>Philip Gedye RCR Energy Ltd. philip.gedye@rcrtom.com.au www.rcrenergy.com</p>	
<p>Since being established as a steel fabrication company in 1953, RCR Energy (previously Easteel) has grown to become Australasia's most successful supplier of energy equipment systems to industry. In this role the company provides solutions for any fuel, or heat transfer media, from 1MW to 400MW output.</p> <p>RCR Energy is a wholly owned subsidiary of RCR Tomlinson, an ASX listed company. RCR's boiler subsidiaries, Tomlinson Boilers, and RCR Stelform are a good fit with RCR Energy's current activities.</p> <p>In addition to our own range of Steampac energy plant, RCR Energy is also licensed to design and manufacture the Stirling, Towerpak, and FM range of large industrial boilers by the internationally recognised Babcock & Wilcox, USA.</p> <p>Products include: Steam, Hot Water, Thermal Oil, Hot Air, Agencies.</p> <p>Services include: Automation, Electrical, Engineering, Manufacturing, Pressure Vessel Materials, Project Management, Commissioning, Troubleshooting, Training and, Tuning and Optimisation.</p>	

Specific Interest Group Listings

Membership of a specific Interest Group will be allowed to have free listings within the Group website according to the category of membership.

BANZ profiles its members in specific Interest Group listings (eg wood pellet fuel producers, wood pellet heater retailers, wood pellet fuel suppliers) so that the public searching for a specific type of service can find contact details. In order for completeness of lists BANZ will include suppliers who are non members but their business name only will be shown. No contact details will be shown for non members.