

# COAL ACTION MURIHIKU

## CAM News Update No 8 2013

# Where next for CAM?

**Jenny Cambell comments on recent event & the CAM team look to the future**

**CAM** had a great celebration on the night of the announcement that Solid Energy wasn't going to proceed further with the briquette plant at Matura – wine, toasting, chuckles, memories of our actions ... Of course there was the feeling we had done it all by ourselves – with CANA's and other passionate anti-coal people's help of course! Euphoric was the word!

However Tuesday's Southland Times took the bubbles out of the wine and our headaches increased with the announcement that GTL Energy had come to the rescue – all the way from Australia 'on the wings of a dove' – peace makers – yeah right! Despondency struck for a short time but with usual in-bred Southland stoic character we are on to our next action. Keep you posted. The situation is not clear to date but more information is coming out and maybe if Don Elder has to front up to the questions we could see some clarification of what is actually happening.

And there are lots of things to do:



**Let's get coal out of schools.**

[www.flickr.com/photos/76537574@N02/7018876265/](http://www.flickr.com/photos/76537574@N02/7018876265/)



**Let's promote renewable energy.**

### WANT TO GET INVOLVED?

Jenny Campbell is the Southland contact for both CAM and CANA (Coal Action Network Aotearoa)  
jennycam@xtra.co.nz 027-351-0180

Treasurer for CAM: John Purey-Cust  
203 Campion Rd RD4 GORE 9774

Newsletter items to Jane Young  
janejimyoung@slingshot.co.nz



**Let's talk about landowners rights.**

[www.flickr.com/photos/mythoto/5712917476/](http://www.flickr.com/photos/mythoto/5712917476/)

**Let's explain how important soil is.**



**Let's encourage riparian planting.**



**Let's keep an eye on Solid Energy!**

[www.flickr.com/photos/2267381977](http://www.flickr.com/photos/2267381977)

# On Again ... Off Again ... On Again

**Y**ou've got to hand it to Solid Energy. Try and get a grasp on what's happening with the Matura briquetting plant and you'll find they've got more moves than Michael Jordan.

Back on court with a vengeance is GTL Energy (GTLE), the Australian company formed in 2000, which developed the lignite-drying technology licensed by Solid Energy for use in the pilot briquetting plant. In 2010 a consignment of more than 450 tonnes of Southland lignite had been on a 13,000 kilometre trip to GTLE's experimental plant near South Heart, Dakota where it was transformed into briquettes and sent home again for testing by Solid Energy. Some of the local South Heart landowners wouldn't have been best pleased by the arrival of all this nasty brown stuff from the antipodes – they had fought long and hard to reverse the zoning changes that had been imposed by the council in order for coal industries, including GTLE, to be able to do their thing. But what the heck, you can't stand in the way of progress.

Solid Energy decided that the briquettes were all good to go and went ahead with constructing their very own briquetting plant at Matura. They confidently expected that it would be up and running by mid 2012 and that during the initial phase of development would produce up to 90,000 tonnes a year of briquettes from about 150,000 tonnes of lignite mined from the New Vale Opencast Mine. As in Dakota, however, some of the landowners weren't too keen on having their environment comprehensively trashed, especially when the scope of Solid Energy's grandiose lignite ambitions was revealed.

We all know what happened – or rather didn't happen – next. The lignite–diesel plans were quietly relegated to the back bench early in the game and the lignite-urea scheme foundered when a major fertiliser company backed out. Wise move on their part.

After that things did start to happen but not in a good way for either Solid Energy or for New Zealand taxpayers. For the environmentalists trying to halt the expansion of coal mining in Southland, however, there were definitely compensations. Good quality farmland bought by Solid Energy was being put back up for sale, which would benefit the agricultural

sector. Although the Southland Chamber of Commerce had claimed that more than 2000 people would be employed at the peak of the anticipated lignite boom, the actual job losses in the region would be minimal as the Matura plant only employed eight full-time staff. When Solid Energy chairman Mark Ford, speaking on Radio NZ (22 Feb), described lignite as, "part of the non-core assets that we will be exiting from," it appeared that Solid Energy would be abandoning the game altogether; although a warning note did sound when a Solid Energy spokesperson later told Radio NZ that the project wasn't necessarily "dead in the water" and that the company wanted to sell it to other firms with capital and experience to take it further.



Rosemary Penwarden

Both Mark Ford and the unnamed spokesperson, had it appears, suffered from a brief memory lapse. On 26 February *The Southland Times* revealed that not only was Solid Energy leasing – not selling – the briquetting plant to a subsidiary of GTLE, but that this decision had been made about three months previously. GTLE Development Ltd, a joint venture between Solid Energy and GTLE, would run the plant (expected to be commissioned by mid-late March) under a tolling arrangement. And – wait for it – Solid Energy would have a 20% shareholding in the new company as well as, presumably, being responsible for selling the product.

This is where it gets confusing. Well, more confusing. Back in Nov 2008 GTL Energy (NZ) Pty Ltd,

## On Again ... Off Again ... On Again contd from p 1 Jane Young

wholly owned by GTLE, was incorporated in New Zealand. A second company, GTLE NZ Operations Pty Ltd, wholly owned by GTL Energy (NZ) Pty Ltd, was incorporated on 23 November 2012. GTLE Development Ltd (the joint venture company) became a registered Australian Public Company on 27 November 2012 but isn't listed with the New Zealand Companies Office. Is your head hurting yet?

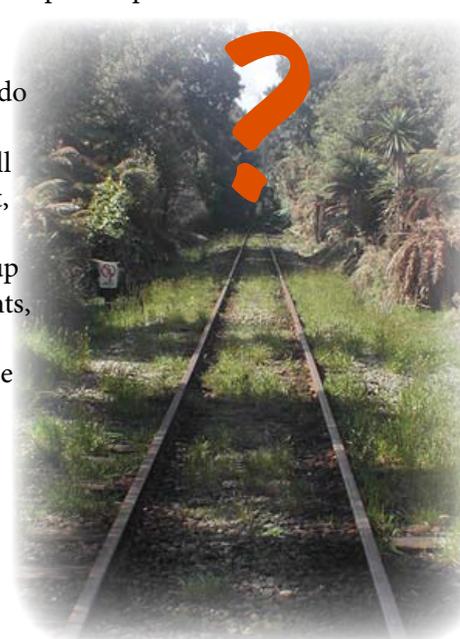
On its website, GTLE (01 March) announced the signing of agreements with Solid Energy, describing the Mataura plant as the very first commercial coal upgrading plant utilizing GTLE's technology. Which might explain the nine month delay in commissioning the plant and the need for Solid Energy to call in British experts to help them finish the job.

GTLE's CEO, Fred Schulte, who will be CEO of GTLE Development Ltd, said: "This deal will create a company with the ability to accelerate technology deployment. The achievement of continuous, safe and reliable production ... will provide the demonstration that is expected to support more wide-spread adoption ... The new entity will be looking beyond a tech-

nology licensing business model and moving into project development, ownership and operations."

No doubt this sat well with Gore District Mayor, Tracy Hicks, who stated "I do believe the lignite resource in Southland is one that will be developed at some point, by somebody."

And Solid Energy's Group Manager Coal Developments, Brett Gamble, is quoted as saying, in a triumph of hope over experience: "We are excited about the future of this proposed venture and believe the transformation of low rank high moisture coal into higher energy briquettes has potential to create significant value." Sound familiar?



[www.flickr.com/photos/pete\\_edgeler/6414111803/](http://www.flickr.com/photos/pete_edgeler/6414111803/)

## Bathurst Resources – Go South Young Man? Jane Young

While awaiting the release of the Environment Court findings on its Escarpment project, Bathurst Resources is making sure that all its eggs aren't placed in one basket. In 2010 the company described itself as, "focused on becoming a producer of high quality coking and thermal coal." However, the assets that it acquired through its purchase of Eastern Resources Group included the Takitimu open cut mine in Southland, which produces lower quality sub-bituminous thermal coal, mainly for the domestic industrial market. The mine was intended to generate some ready cash during Bathurst's difficult start-up period and produced approximately 150,000 tonnes of coal in 2011 and 2012.

Despite posting a loss of \$25.9 million in 2012, Bathurst announced that its subsidiary, Takitimu Coal Limited, had acquired property adjoining its operations at a cost of \$14 million. As the mine becomes exhausted it is being extended into the nearby Coaldale block on the newly purchased land.

Now we get to the interesting bit. Despite its name, a company called New Brighton Collieries (NBC), formerly owned by L&M Coal Holdings (registered in Belize, but presumably a subsidiary of the many-tentacled L&M Group), doesn't actually mine any coal. Instead its principal asset is an exploration permit (40625) covering 685.3 ha of land 5 km from the Takitimu mine. NBC applied for a mining permit but in June 2011 the Southland District Council and Environment Southland were awaiting more

information before deciding on how to progress the consent applications. Perhaps their reluctance might have had something to do with the fact that the proposed mine would affect about 150 ha of council land and would involve the destruction of several stands of trees.

Enter Bathurst Resources. On 28 February 2013 the "Takitimu Factsheet" appeared on Bathurst's website stating that Bathurst had acquired all the ordinary shares in NBC for a total of \$16.75 million. Yet the official announcement sent to the New Zealand and Australian stock exchanges was dated 28 February 2012. A typo? Equally interesting are the sale conditions – the acquisition won't be completed until NBC is granted a mining permit, unconditional land access rights and all the necessary consents required before mining can be carried out. One might wonder (cynically) whether the proposed amendments to the Resource Management Act will speed up the process by which NBC obtains these permits.

Just in case the Takitimu extension doesn't work out for Bathurst, they've got other irons in the fire. Back in 2010 the company's subsidiary, Rochfort Coal Ltd, was granted a prospecting permit for an 836 sq km area in South Canterbury that runs from the Two Thumb Range south to the Hunters Hills. That project has been sitting on the back burner during the last two years but Bathurst has now applied for an exploration permit so they can get on with drilling, bulk sampling and mine feasibility studies before applying for a full mining permit. ■

# Clued Up On Carbon – Part 1

## A series for the chemically challenged

We hear a lot about carbon – carbon credits, carbon sequestration, carbon dioxide equivalents, etc – but it’s hard to get a grip on it all without understanding a bit of basic chemistry. So if you spent your time in science classes writing notes to the cute boy/girl in the back row or stuffing up the gas taps with chewing gum – keep reading.

Carbon is a chemical **element**. That means it’s one of the 92 naturally occurring substances on earth that we can’t break down into anything simpler by ordinary chemical means. Carbon is the fourth most common element in the universe.

Not all carbon atoms are created equal. Sure, when it comes to chemical changes, one atom of carbon is just the same as another. Set fire to a lump of charcoal (which is pretty much pure carbon), then if there’s enough oxygen around, each carbon atom can grab two oxygen atoms and, hey presto, you’ve got carbon dioxide. However, in your lump of charcoal, a small proportion of the atoms were slightly heavier than the rest. Atoms of the same element with different masses are called **isotopes**. They’re useful tools for climate scientists because they can give all sorts of information about what happened in the past.

When the carbon bonded with the oxygen it formed a **chemical compound** – carbon dioxide  $\text{CO}_2$ . If you’d burnt the carbon in hydrogen gas instead of in oxygen then each carbon atom would have bonded with four hydrogen atoms, producing molecules of a compound called methane  $\text{CH}_4$ , a hydrocarbon. Chemical compounds are made up of different kinds of atoms joined together. Just as with human relationships, some partners are in there for the long haul while others believe in mixing and matching. Carbon has been unkindly described as the “whore of chemistry” because it’ll hook up with just about any element it encounters, plus it bonds with more than one atom at a time. Which is just as well, because if it wasn’t for carbon being so promiscuous you wouldn’t be here. Each cell in your body is made up of thousands of different organic compounds (ones containing the element carbon) – proteins, fats, carbohydrates, DNA and all the rest.

Until chemists got into the act, people thought that only living cells could make organic compounds. Then in 1828, a German chemist made urea in his laboratory, the floodgates opened, and millions of organic compounds poured out, many of which –

polythene, DDT, CFCs, for example – hadn’t existed on the planet until they were created by humans. (As you can see, chemists use the word “organic” in a different way from farmers and foodies.)

Just as all apples are fruit, but not all fruit are apples; not all chemical compounds that contain carbon are organic. Carbon dioxide itself is labelled as an inorganic substance. So is limestone (calcium carbonate), which has been laid down by living, reef-building organisms such as corals. If it’s any help, organic compounds almost always have carbon bonded with hydrogen. Oh, except for CFCs, chlorofluorocarbons, which don’t contain any hydrogen at all... Let’s face it; the components of our wonderful, complex world just don’t fit neatly into pigeon holes.



‘CARBON FOOTPRINT’

<http://www.polyp.org.uk/>

Back to carbon, the element. Carbon may be the whore of chemistry but it doesn’t give up its virginity easily. Pure carbon prefers to stay that way, which is why the terra preta (“black earth”) soils built up by long-gone Amazonian farmers may still contain up to 70 times more stored carbon than surrounding soils. Normally soil quickly becomes infertile when rain forest cover is removed, but the Amazonian farmers enriched their soils with biochar, produced by burning organic matter such as animal bone and tree bark out of contact with air. This produces a highly porous charcoal that helps the soil to retain water and minerals, but which locks up the carbon.

Radiocarbon isotope dating reveals that people started laying down biochar at least 8000 years ago. Not everyone agrees that we could produce enough biochar to sequester carbon on a large enough scale to combat climate change, but it does seem ironic that this age-old process is now part of the arsenal with which we hope to fight a 21st century problem.

