

Continued from Solid Energy Scientist wins International Recognition

The six-year research project "Hydrogen Energy for the Future of New Zealand" is designed to create the technological platform that would be necessary if the country were to move to a hydrogen-based energy economy. Trial technology for converting our low rank coals to high purity hydrogen suitable for use in fuel cells has been built

and commissioning work is well advanced. In the paper the scientists described some of the features of the technology, some of the difficulties faced and means of overcoming them.

The paper also considered the likely role of coal-based hydrogen production technologies in the development of a

hydrogen energy economy in New Zealand. Given that the country has significant coal reserves, but dwindling gas supplies and insufficient economically viable renewable resources to meet likely future demand, there will be several decades during which hydrogen production from coal can play a major role.

Coal ash helps environmental issues at mine site

Earlier this year, Solid Energy began investigations to see if coal combustion products (waste ash such as fly ash and 'bottom ash') could be used to treat acid rock drainage. Investigations have indicated this ash, sourced from Forterra's Glendelboye milk processing plant near Timaru, and the Westland Dairy factory near Hokitika, could be successfully used to neutralise the acidity of potentially acid-forming waste rock. Investigations are continuing and a new trial pad, using 475 tonnes of ash over a 5 metre lift of potentially acid-forming material, has recently been constructed. This new trial pad will further establish the effectiveness of the ash to neutralise the waste rock.



Fly Ash Trials at Stockton Opencast Mine

Low Lake Levels may affect electricity supply

The warmer and drier weather over winter and spring has resulted in low rainfall and snowfall in the main hydro catchment areas in New Zealand, resulting in a steady decline in storage levels below the average.

Storage levels are tending towards a dry rainfall year, with current levels well below those seen in 2003 and 2004 at the same time of year. Insufficient rainfall over December could put us in a position similar to that at the end of 1991, potentially resulting in the dry year experienced in 1992.

The low level of inflows can be clearly seen in the weekly inflows to the end of November.

According to NIWA: "Sea surface temperatures around New Zealand are expected to remain slightly above average to the end of January 2006. Air

temperatures are expected to be average or above average in all regions of New Zealand. Rainfalls are likely to be near normal in all regions, except for normal or below normal in the east of the North Island. Normal soil moisture levels and stream flows are expected in the North Island. Generally dry conditions are expected in the South Island."

The NIWA forecast coupled with low hydro lake levels and a tight generation supply margin would indicate that electricity prices are likely to show increased volatility over the summer months, as hydro generators withhold valuable water resources for the 2006 autumn/winter peak load periods. Therefore the market will be reliant on thermal generation from coal, gas and oil plant. Given the current record prices for these commodities we

can expect a significant uplift in wholesale electricity prices until the hydro lakes return to average levels.

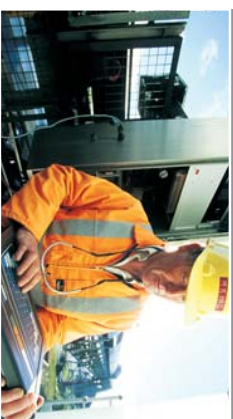
We are already seeing a rise in prices with the New Zealand wholesale price index doubling over the past month to \$118/MWh.

In the extreme we could potentially face periods of electricity supply interruption if insufficient generation capacity is unavailable due to scheduled or random maintenance outages, or if transmission lines become overloaded.



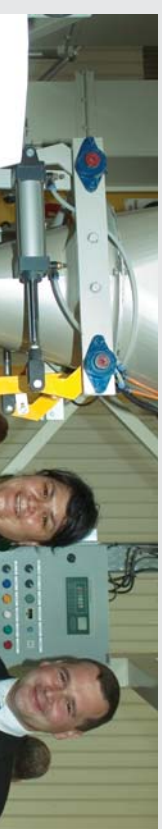
For further information, or to contact any of the Solid Energy Marketing team please call:
North Island : Toll free 0800 655 122
South Island: Toll Free 0800 655 123
Email: info@solidenergy.co.nz

Coalface



DECEMBER 2005

Nature's Flame opens new pellet mill



The Associate Minister for the Environment, the Hon Nanaia Mahuta, with Nature's Flame's Rotorua Plant Manager, Dale Rendell, at the opening.

Solid Energy's renewable biomass company, Nature's Flame, has opened a new wood pellet mill in Rotorua, enabling the company to expand its supply of low emission renewable energy on a national basis. Nature's Flame currently has a pellet mill at Rolleston, near Christchurch, which has expanded quickly. The new Rotorua mill will help Nature's Flame supply an increasing demand for pellets from the North Island. Production capacity will initially begin at 50,000 tonnes a year, but will eventually expand to 100,000 tonnes a year.

It is estimated the new mill will provide 10-15 jobs in the area, both at the plant and in the sales and installation of the specially designed wood pellet fires. The facility will initially produce enough low emissions energy to heat up to 36,000 homes.

Continued over page

Committed performance for year ahead

Our service over the last 12 months has been unsatisfactory and we accept that this has been a challenging period for our customers. The transition to new mining operations throughout the country has been difficult and we appreciate customers taking coal from alternative sources while we resolved our production problems. To cap off a tough year many of you were affected by the industrial action in the middle of the year. Fortunately, we finally concluded the wage round on 21 October!

Production that are credible in meeting our commitments to stakeholders and that are viable on a stand alone basis. The status of each mining operation is as follows:

Rotowaro – Our mining contractor, has mobilised additional resources to the site to catch-up overburden stripping work. While performance is still behind plan, the contractor

expects to catch up despite wet weather in September and October.

Spring Creek – While production, since the monitor restarted extraction on 8 August, is ahead of plan, we are not committing to term export contracts until we complete the work on a longer-term mine plan in April 2006.



Barry Bragg

Continued over page

Continued from Nature's Flame opens new pellet mill

Andy Matheson, Managing Director of Nature's Flame comments: "Home heating is the major source of winter air pollution in New Zealand's towns and cities. Nature's Flame wood pellet fires have very low emissions, making them ideal for urban use – particularly given the recently implemented National Environmental Standards." Nature's Flame wood pellets are

Coal seam gas investigations move forward

Over the last year Solid Energy has been investigating the commercial viability of extracting methane gas trapped in deep coal seams as a source of natural gas.

We have joined forces with an independent US oil and gas company, Resource Development Technology LLC (RDT), to explore the North Huruly coalfield and part of the northern areas of the Fotowaro coalfield, in the Waikato, under a Petroleum Exploration Permit (PEP) granted to RDT in 2002.

Coal seam gas, also commonly known as coal seam methane, coal bed methane or coal seam natural gas, occurs naturally in coal beds and has been generated during the lengthy process that converts plant material to coal. This process is known as coalification.

Coal seam gas can be used for industrial energy and electricity generation and can be injected into gas transmission systems to supplement gas resources. With the decline of the Maui gas fields and increasing pressure to develop new sources of electricity generation and industrial energy, coal seam gas could make a significant contribution to

produced from 100% natural pine wood residues and burn in specially-designed pellet fires. Nature's Flame has worked closely with several North Island companies including Tachikawa Forest Products Ltd to secure waste wood supply for the factory. "Following the demise of the giant Maui gas field there is greater pressure on New Zealand's natural gas supply which is leading to higher prices for gas buyers. In addition,

electricity generation capacity is under pressure, especially in dry years, driving power prices to record levels," Matheson says. "Nature's Flame is one of the most environmentally sustainable home heating solutions available and we are committed to providing a clean, sustainable and cost effective home heating solution to all New Zealand home-owners."



Alfred Marewa (left) and Chris Neilson, CRL Energy Ltd, inspecting core samples from coal seam gas trials at Fotowaro coalfield, Waikato.

meeting New Zealand's increasing energy needs in the next five to ten years.

Initial work has indicated this methane resource could be equivalent to a gas field of 300PJ. As a comparison, the Pohukara gas field is estimated at 600 – 800PJ and the Kipepe field at 300PJ. The Huruly Power

Station, which generates electricity using coal and gas, currently uses around 60PJ of fuel a year.

Solid Energy is focusing its coal seam methane exploration within the Waikato region initially, to target what we think are very high potential deposits.

Continued from committed performance for year ahead

Terrace – The mine recommenced extraction in May and we are now developing the next coal block.

Ohai – Coal production from the new No 17 Opencast pit has substantially increased coal stocks and the new washery is operational.

Industrial Relations

The two-year National Mining Collective was ratified by the Engineers' Union members on 21 October. The Engineers' Union has achieved its objective of establishing the framework for a coal mining industry collective agreement. Currently there are seven employer groups to the

National Mining Collective and the Engineers' Union intends to add subsequent parties (including private coal mining companies and other contractors working on coal mining sites).

As you might expect the transition from site-specific collective agreements, based on local mining and employment conditions, to one national collective has been a complex process involving several parties, many of whom have conflicting interests.

So as we head towards bargaining the National Mining Collective from 1 April 2007, we are digesting the lessons from our recent experiences. To this extent we will be contacting you to discuss how we might work through any future industrial action.

Looking Forward

Another standout disappointment over the last 12 months has been a reminder of the difficulties and astronomical costs of securing land access and resource consents to develop new mines to meet medium term coal demand. We have spent millions of dollars to secure consents from the West Coast Regional Council and the Environment Court to develop the 5 million tonne Cypress mine. We are now facing further delays as the High Court rules on a further appeal by Forest & Bird.

Thank you for your continued support and we look to providing better service in 2006.

Barry Bragg,
Chief Operating Officer

Solid Energy scientist wins international recognition

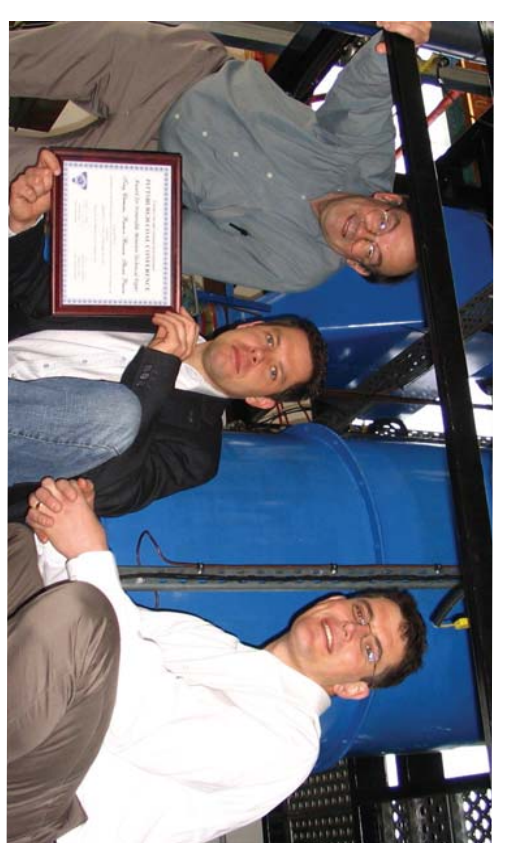
Solid Energy Research and Technology Research Manager, Steve Pearce, is one of three New Zealand coal scientists honoured at an international conference for their joint research paper on extracting hydrogen from coal.

Three applications of coal to hydrogen technology for New Zealand were considered by the trio in their paper. These were: meeting the needs of small remote communities, servicing a large industrial complex and production of hydrogen for the country's future transport fleet.

Their paper was one of only five singled out for an honourable mention from the nearly 300 recently presented to the Pittsburgh International Coal Conference. The mention in effect means New Zealand researchers are being internationally recognised as being at the leading edge of worldwide clean coal technology research.

Dr Pearce co-wrote the paper with Ramon Brown and Dr Tony Clemens of CRL Energy Ltd (CRL).

Their work covered a major part of a hydrogen research work programme being



From left to right, Dr Tony Clemens, Ramon Brown, and Dr Steven Pearce

undertaken by the Government. The \$6 million investment is via the Foundation for Research, Science and Technology (FRST). Also involved in the programme are research partners IRL Ltd which are

developing the fuel cell component of the technology package and sub-contractors Urtac who provide future energy demand modelling input.

Continued over page



The Rotowaro Overpass during the early stages of construction

Transition to Awaroa 4

Managing the transition from the old Township Pit to Awaroa 4 at Rotowaro Opencast Mine Huruly, has been a challenging task for our North operations. The amount of coal seam exposed at Awaroa 4 is smaller in volume than the exposed coal seam found at Township Pit, meaning it has been a tougher job at Awaroa 4 to get to the prime coal needed for our customers.

We are now at the stage of extraction where our coal is being sourced from the deeper seams in Awaroa 4. This coal is proving to be of a consistent high standard.

Rotowaro Overpass

Construction has begun on an 80 metre steel culvert (tunnel) at Rotowaro. The team at Rotowaro needed to find a safe method to haul overburden from Awaroa to the Township pit, which crosses Rotowaro Road and the adjacent Awaroa Stream. The creation of a tunnel was found

to be the safest and most efficient solution. The tunnel will allow traffic to drive through while mine vehicles will travel over top of the tunnel. The mine vehicles will be removing overburden from the Awaroa 4 pit, which will be used to backfill the old Township pit. Once the Township pit has been backfilled, rehabilitation of the overburden can begin. The overpass will remain in place for the life of Awaroa 4, which is expected to produce coal for the next eight years. It is hoped the overpass will be completed by May 2006.

Rotowaro Contractor

The Voluntary Administrator has signed a Heads Of Agreement to sell the assets of the Henry Walker Elin contract mining business to Leighton Contracting Pty Limited. Leighton has indicated that it would like to take over the Rotowaro Mining Contract from Henry Walker Elin.

Further exploration for Spring Creek

Solid Energy has commenced a \$1.2 million drilling programme to prove coal resources which could extend the life of Spring Creek Underground Mine, near Greymouth, by five years.

A further 12-month mine plan for development and extraction through to February 2007 has now been approved. Under the new plan coal extraction will commence in a previously developed area of the mine, known as "panel 2" and coal development and extraction will take place in "panel 3".

Barry Bragg, Chief Operating Officer, says: "To date, Spring Creek has substantially met or exceeded all the required performance targets and milestones which confirm it's operating safely and is credible and viable. It's also been really pleasing to note that daily production is regularly exceeding targets. As a result we now have the confidence to investigate further opportunities to extend the mine."

Exploration drilling undertaken last year identified up to 2 million tonnes (mt) of predominantly thermal coal in very thick seams, to the west of the mine's southern working area, which could be extracted by hydraulic mining. Mining of the area known as "panel 6" could extend the mine's life by up to five years and give the opportunity to fully assess the long-term viability of eventually extending the mine to the west.

About 15 drill holes will be put down in the next few months to assess the viability of development and coal extraction in panel 6. Solid Energy expects to make a decision on whether to proceed with panel 6 by the end of April 2006.