

Vision: Coal is accepted as a secure, competitive and environmentally sustainable energy resource contributing to New Zealand's prosperity

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This Newsletter is published for the Coal Association by CRL Energy Ltd. We value your feedback on issues discussed in the Coal Newsletter. For comments or enquiries please contact:

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## Slowing down of ETS recommended by panel

*By Wayne Hennessy*

After considering 162 written submissions and numerous stakeholder meetings, the Emissions Trading Scheme Review Panel has recognised that "increasing incentives for emissions reductions through the ETS will increase the cost imposed on our economy in the short term . . . Given the current international uncertainty and the challenging state of the economy, this means there should be measures in place which ensure the increase in the costs of the ETS occurs at an appropriate pace."

The panel's report (available on [www.climatechange.govt.nz](http://www.climatechange.govt.nz)) stated that it has heard "compelling evidence" that the impacts of the ETS for the majority of businesses and households are currently low. However, it has also heard from businesses for whom the impacts of the ETS seem to be significantly greater than average. It has heard first hand of businesses planning to abate their emissions in sectors where other businesses have claimed no such options exist.

Arguing that the strongest incentive to change behaviour lies in a clear long term price signal for businesses and households, the panel recommended to the Government:

- The price cap, currently set at \$25 per New Zealand emission unit (NZU) until 2012, should be increased by \$5 in 2013 and each year beyond so that it would be \$50 by 2017;
- The current obligation for businesses to surrender one emissions unit for every two tonnes of emissions be phased out with a 2-for-3 (67%) obligation in 2013 and a 5-for-6 (83%) obligation in 2014 so that in 2015 businesses will face the full price up to the cap of \$40 per NZU for that year;
- No fundamental changes to the allocation regime for industry because of the risks of competitiveness loss and reduced economic output. The Government should explore a wider range of issues relating to allocation settings which have been raised by stakeholders;
- Of particular relevance to some coal users who missed the current eligibility thresholds, an additional 30% allocation step is proposed for trade-exposed companies with emissions intensities half of the current lower level;
- Of particular relevance to the mining industry, the panel proposes further examination of the potential inclusion

of emission sources including liquid fossil fuels and fugitive methane for determining eligibility and allocative baselines;

- A value-added test for allocation should not be introduced because of the administrative complexity (although, CRL Energy notes this could have provided a much fairer way of assessing eligibility for some dairy and wool processors);
- Agricultural methane and nitrous oxide emissions should enter the ETS in 2015 (with a two-year 1-for-2 obligation), but at the farmer level rather than the processor level as currently legislated; and
- In line with the EU ETS, the Government should "urgently" consider whether [cheap] industrial gas international units "pose a significant risk" and whether a time limit should be imposed on their eligibility. CRL Energy comments that the recent lower EU and New Zealand market prices have been partly attributed to the current availability of these units.

### Implications of the Review report

The Review report offers recommendations and now it is up to the Government to decide which ones it will act on. Climate Change Minister Dr Nick Smith said, "We are advancing the detailed work on the 61 recommendations. There are both upside and downside fiscal implications in different recommendations that will need to be considered. Changes to the scheme would require legislation and the Government will finalise its policy once the detailed work is complete." It is expected he will soon release the National Party's proposed policy if it should form the Government after the forthcoming election.

If the Government does pass legislation in line with the Review recommendations, coal suppliers and users would face an increase in the effective \$12.50 price cap currently to \$20 in 2013, \$29.20 in 2014 and \$40 in 2015. The consequent coal price increases would not necessarily be in line with these cap increases. The purpose of the cap is partly to avoid volatile price increases until a carbon market is well established.

*continues on page 5*

# Global energy outlook uncertain

On 14 September, energy leader's gathered in Brazil for a summit organised by the World Energy Council (WEC). Participants heard that the outlook for the sustainable supply and use of energy has become more uncertain in 2011. This comes in the context of the significant events and economic uncertainty that have affected the energy sector over the past 2 years.

The key messages were drawn from the World Energy Council's "2011 Global Energy Issues Survey". Secretary General of the World Energy Council, Christoph Frei, commented that the survey highlights the issues that are "keeping energy leaders awake at night".

"The uncertainty around a long term climate framework will simply lead to wrong investment decisions. The developments in the Middle East and North Africa region and the tragedy at Fukushima have further added to the pressure to adapt and represent a significant set-back in solving the global energy challenges."

Looking to the future, Pierre Gadonneix, Chairman of the World Energy Council, said it is in the nature of the energy sector to be able to cope with new uncertainties each year. "Therefore we must now make all our efforts to build a world energy system resilient to all changes and accidents. The only energy system that is capable of resilience is the one that allows economic development for all in a way that is environmentally and socially acceptable and sustainable. And we must come together now to achieve this goal.

"To create such a system we must give investors the long term signals to invest now in diversified forms of energy, in infrastructures, in energy efficiency and in R&D to prepare for the future."

For the 3rd consecutive year, the

"2011 Global Energy Issues Survey" has gathered the views of WEC's energy leadership community, which is drawn from participants in over 90 countries, to identify the key drivers in the Global Energy Agenda. New Zealand is represented at WEC by Dr Rob Whitney, CEO of CRL Energy and Chairman of the Energy Federation New Zealand. The survey provides an insight into the critical uncertainties affecting the energy sector, identifying key trends and highlighting the areas where action is required to ensure the sustainable supply and use of energy for the greatest benefit of all.

In 2011, the critical uncertainties space is dominated by three major macroeconomic and geopolitical issues:

- The absence of a global climate framework and the lack of progress towards a significant agreement between the big blocks is keeping this issue as the dominant critical uncertainty;
- The "political spring" in the Middle East / North Africa region with its impact on Libyan oil supply has affected energy markets globally and increased concerns over political instability; and
- Fukushima has pushed the nuclear renaissance from consensus into a much more uncertain position.

Taken together and factoring in the 2010 oil spill in the Gulf of Mexico, these events have put large scale accidents on the radar.

In comparison to 2009, macroeconomic risks related to the financial / economic crisis have lost their dominance as a key concern for the energy sector.

However, the crisis is still looming and issues including energy price volatility, commodity prices, and capital market access remain in an

alert position similar to 2010.

Looking at the potential energy solutions that require immediate action four topics are on top of the agenda:

- Renewable energies which remain a priority despite investors' prudence in a current economic climate;
- Energy efficiency which will require investment in capital, education, and institutional frameworks to promote adequate behaviour and solutions; and
- The quartet of smart grid, storage, electric vehicles, and sustainable cities has been increasing in influence since 2009 and these are now in a solid position to play a significant role in energy developments; and
- Carbon capture and sequestration (CCS), with higher perceived impact the uncertainty has decreased. However, without a clear climate framework, CCS remains in a challenging position due to a lack of effective financing mechanisms and incentives to develop this technology beyond pilot.

Hydrogen is not currently seen as playing a big role as a clean energy vector while the energy-water nexus is seen as rapidly growing in concern.

"It strikes that the very issues that in previous years were seen as a substantial part of the solution are all taxed with higher uncertainties," says Frei.

"The risks associated with these issues, ranging from physical accidents over regulatory uncertainties to financial risks, have increased and managing them will be an important part of the agenda going forward."

The findings from the survey also show that Latin American countries see a greater role for electric vehicles and biofuels in meeting global energy needs.

## Comet Ridge announces recoverable CSG from Greymouth Coalfield

On 26 September, Australia and New Zealand Coal Seam Gas (CSG) explorer Comet Ridge Limited announced its first CSG resource certification in its mining permit areas in the Greymouth Coalfield.

Comet Ridge announced a Contingent Resource Certification of 65 Petajoules (PJ) of 1C, 127 PJ of 2C, and 244 PJ of 3C Resources (recoverable).

The Contingent Resources have been certified by industry recognised, Independent Reserves Certifiers, Netherland, Sewell & Assoc (NSAI) of Dallas, Texas.

Comet Ridge Managing Director, Tor McCaul says the certification represents the first coal seam gas resources independently certified on the West Coast, and the first for Comet Ridge in New Zealand. "The certification has been based on drilling results from a combination of coal seam gas wells and a significant number of coal core holes across the area, and demonstrates that a significant volume of recoverable gas is present in this area. Commercial gas production from the Greymouth coalfields area has the potential to make a significant contribution to the energy supply equation in this region."

Mr McCaul noted that the Greymouth Coalfields area was only a small part of Comet Ridge's total acreage position in New Zealand,

which totalled approximately 8,600 km<sup>2</sup>. He said the aerial magnetic and gravity surveying, which was conducted in 2010 and 2011, combined with follow up drilling, could enable further resource volumes to be certified in the coming year.

Mr McCaul said it was Comet Ridge's objective on the West Coast to establish coal seam gas reserves to meet increased energy demand, particularly through localised electricity generation. Locally sited generation would improve the security of supply on the West Coast, which has experienced issues with voltage instability due to low levels of redundancy in electricity supply. Recent upgrades have been made to transmission assets in this region, which could create additional opportunities for local

electricity generators.

The strategic addition of the PEP 50279 Extension Area, which was secured in July 2011, has provided a key link between PMP 50100 to the south and PMP 50279 to the north. This additional area will prove to be important in the accessing and commercialisation of the thicker coals north and east of the town of Runanga.

Comet Ridge is currently processing and interpreting the data acquired in its recently completed Airborne Gravity Gradiometry (AGG) survey programme. This is being incorporated into regional geological modelling of the West Coast in the South Island of New Zealand, which will help the company identify the highest value CSG targets for the 2012 drilling programme.

The Contingent Resources (recoverable) announced on 26 September by Comet Ridge are detailed below:

### Greymouth Coalfield Net Recoverable Resources

Permit	COI Interest	1C (PJ)	2C (PJ)	3C (PJ)
PMP50100 (Greymouth)	100%	45	88	168
PEP50279 (Buller Block)	100%	20	39	76
	COI TOTAL	65	127	244

## Solid Energy begins work on Matura Brikette Plant

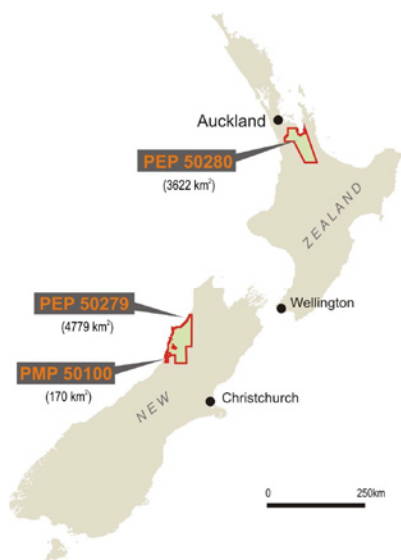
The "first sod" was turned at Solid Energy's Matura Brikette Plant by the Hon. Bill English, MP for Clutha-Southland and Minister of Finance, on 9 September.

The small ceremony marked the start of work on the \$25 million plant which is scheduled to start production by June 2012. The plant will produce up to 90,000 tonnes a year of low-moisture and higher-energy briquettes from about 150,000 tonnes of lignite mined from Solid Energy's New Vale Opencast Mine and trucked to the Craig Road site. The plant will use technology developed in the USA by GTL Energy.

Thirteen full-time jobs will be created to operate the plant along with 10 additional full-time positions at New Vale Mine to cater for the

increased business in Southland. Up to 85 full-time positions will be created in the construction of the plant, with roading and fencing contracts also awarded to local contractors.

Solid Energy Chief Executive Officer, Dr Don Elder, says the plant is part of a strategy to unlock the value of Southland's lignite resource. Dr Elder says the company will take full responsibility for greenhouse gas emissions from this project and others in the pipeline. The company plans to meet its carbon obligations through a range of approaches and technologies, including technology to reduce production emissions, offsetting emissions by planting trees, capturing and sequestering carbon underground, and purchasing carbon credits.



Comet Ridge NZ CSG Permits.  
Image: Comet Ridge.

## L&M Energy set to produce electricity from CSG

On 21 June, L&M Energy released an update on their Ohai coal seam gas (CSG) pilot operations. The company announced they have signed a power connection agreement, with connection to the existing nearby electricity network proceeding as planned. They also have a 1MW gas-fired generator in the process of being installed at the project site - with plans to sell electricity to the Rio Tinto Alcan-owned New Zealand Aluminium Smelter (NZAS).

Earlier this year, as part of the Ohai CSG Pilot Project, L&M Energy drilled New Zealand's first in-coal seam lateral well culminating in the successful intersection of the 1035m long OM-7 lateral well with the OM-5 production well.

OM-5 was immediately put into a production test to help L&M Energy gain an understanding of the most effective way to complete production wells.

In their update, L&M reports that pressure measurements during

drilling of OM-5 indicated that OM-5 and OM-7 were in communication; however, subsequent analysis triggered contingent plans for a clean-out operation. The clean-out (scheduled for July) was aimed at optimising water flow rates and improving set-up of down-hole equipment.

To take advantage of the availability of a work-over rig the nearby OM-1 and OM-3 wells were also to be recompleted and converted into production wells. By including these additional wells as part of the pilot, L&M expect to expedite the dewatering process and promote early gas production.

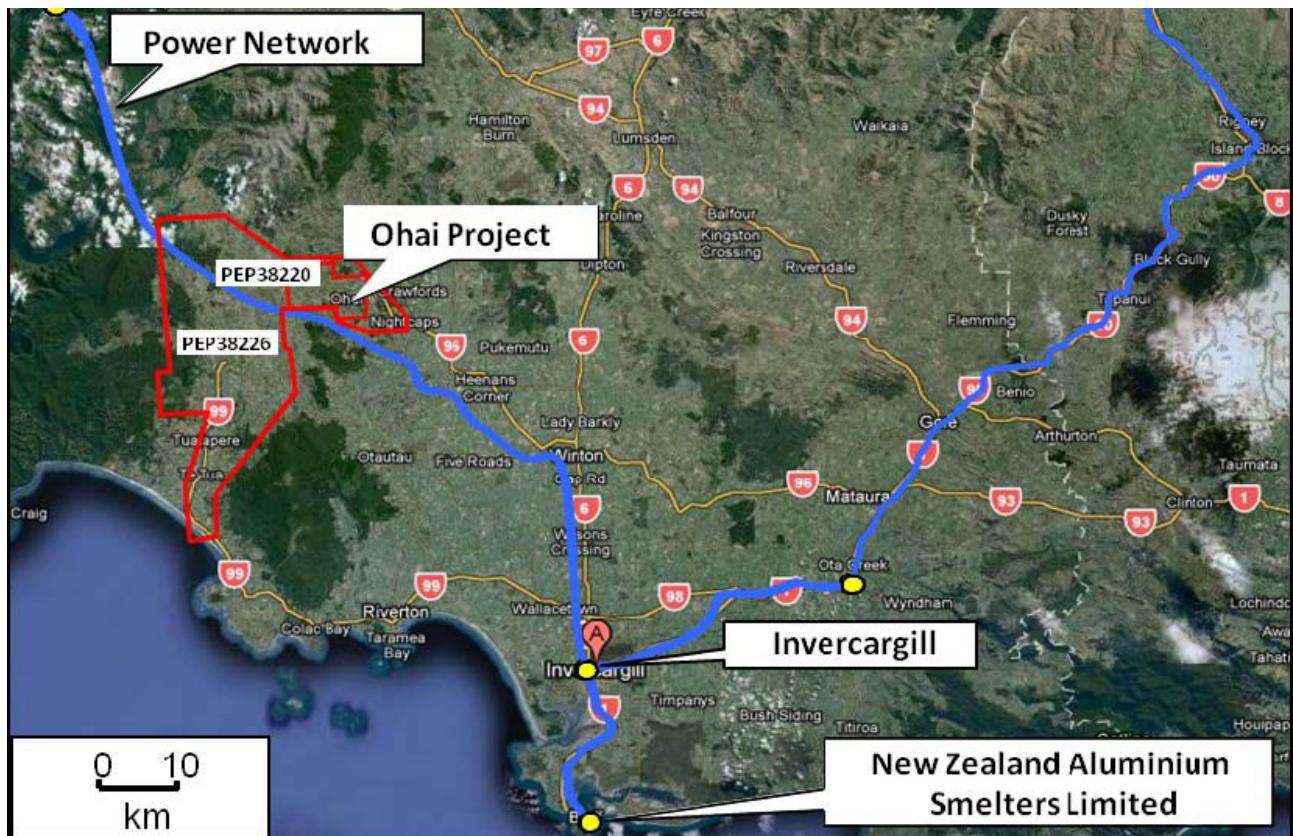
The pilot project follows on from the company's 3P reserves upgrade to 274 PJ and forms a key part of the company's 2P gas reserves campaign which is aimed at independently certifying New Zealand's first tranche of 2P CSG reserves.

The company holds equity interests in over 10,000 square kilometres of exploration acreage

contained within nine New Zealand exploration permits and says it is well funded for its current work programmes. Managing Director of L&M Energy, Kent Anson, says that Ohai is the company's most promising CSG field and could hold as much methane as some of the bigger natural gas fields in Taranaki.

Meanwhile, at the end of July, L&M Energy's Talon-1 exploration drilling in onshore Taranaki reached its total depth and intersected basement at 1501m. The well intersected over approximately 75m of good quality Manutahi reservoir; however, no significant hydrocarbon shows were observed.

The company reported that the well log data will now be recorrelated with seismic data and incorporated into the technical database for the permit and consultation before the next stage of exploration. Talon - 1 is the first well to be drilled on the 482.4 km<sup>2</sup> permit, which contains multiple further drilling targets.



Location of PEP 38220 in relation to Invercargill and New Zealand Aluminium Smelters. Image: L&M Energy Ltd.

## Slowing down of ETS recommended by panel

*continued from page 1*

The ETS price rise for an individual coal would depend on the coal type, whether it is surface or underground mined and chiefly on the market price, which depends on several factors including whether international agreements are in place and consequently the supply and demand for emission units.

The Panel expressed concern that some ETS participants (fuel suppliers) may have been overestimating their carbon costs and passing on excessive costs to consumers by using the price cap as a proxy for the actual carbon price faced by them when the actual carbon price is below the price cap. While some fuel suppliers do purchase units at the effective \$12.50 price cap, most units are purchased on the market, which was trading at an effective price of \$10 (that is, half the market price of \$20 per NZU as at the end of May). The panel notes that if the price cap is to increase by \$5 per annum from 2013 to 2017, as they recommend, it is even less likely that the effective price cap will reflect the actual carbon price faced by participants after 2012.

CRL Energy notes that there was no discussion of the extra ETS administration costs for fuel suppliers. To improve the transparency of carbon costs faced by ETS participants, the panel would like to encourage businesses to disclose their actual ETS costs.

In the absence of an international climate change agreement, the industry sector is relieved that industrial allocation will continue to protect competitiveness but the 1-for-2 and price cap moderating measures will be phased out too quickly. There is also concern about selective banning of cheaper industrial gas units that have been approved by the UN.

The Panel argues it is incorrect to say our international competitors are not taking any action to reduce their emissions. The Panel highlighted a variety of measures that Australia, the EU, China, and the US have introduced, or are

planning to introduce, despite the current international uncertainty. It acknowledged these measures are not always emissions trading schemes, but it claimed they may impose comparable costs and reduce emissions by a comparable amount.

CRL Energy notes that the Panel did not focus on the numerous difficulties and delays that appear likely with most of these country measures (and the greater protection they provide to their trade exposed sectors).

### Reaction to the review

On behalf of the mining industry, Straterra commented that the review report is unjustifiably optimistic on the global climate change response, and the Government is urged to get its own facts before reaching any decisions. The industry sector assesses there is very little to report regarding other countries' actions. Straterra CEO Chris Baker commented that, "Other than Europe, and leaving Australia to resolve its own policy challenges, New Zealand is the only country in the world with a price on carbon, and that situation is not likely to change anytime soon."

"The report is therefore unrealistic on the required pace of change in New Zealand. Slowing down the entry of some sectors in the ETS, and the two-for-one surrendering obligation for units, by a few years offer little comfort for sectors that cannot pass on the price of carbon, especially when coupled with a steeply climbing carbon price cap.

"If New Zealand businesses cannot compete with overseas businesses where there is no price on carbon, those businesses will simply reduce output, or even move offshore, with no benefits for the world's climate, and with adverse effects on the New Zealand economy."

Mr Baker added that Straterra appreciated the Panel's efforts to understand mining, and in particular the treatment of fugitive methane emissions and diesel, which have unfairly been excluded from being eligible for free allocation of units because of anomalies in ETS design.

## West Coast MP opens new CRL Energy Buller Office

The Hon. Chris Auchinvole, MP for West Coast and Tasman officially opened CRL Energy's new office in Westport on 29 June at a ceremony also attended by the Minister, Hon. Rodney Hide. The facility will be offering coal technology and mine geology services for operations in the Buller region. Both Mr Auchinvole and the Minister spoke of the importance of coal and mining to New Zealand.

CRL Energy Chief Executive Rob Whitney says the coal industry is booming in the Buller region with strong international demand for its high quality coking and thermal coals. "There are a significant number of new developments planned in the Buller and other West Coast coalfields. CRL Energy provides services ranging from geological assessments and advice, testing including coal preparation studies on coal washery parameters, spontaneous combustion, methane drainage and rock reactivity, to research on upgrading coal properties and advanced coal conversion technologies. The new laboratory will be our shop front for these services in the Buller."

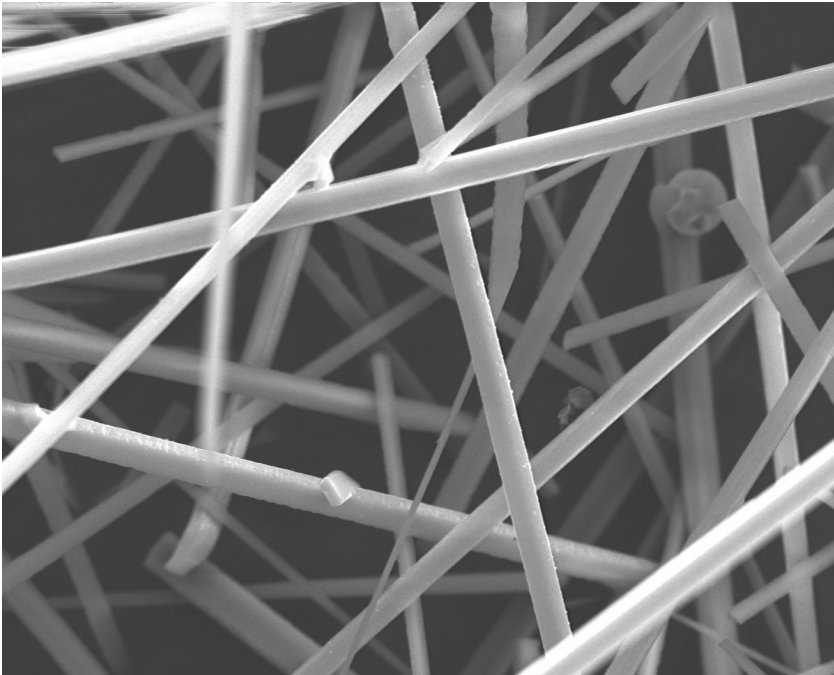
Dr Whitney says New Zealand has benefited and will continue to benefit from CRL Energy's research, "Our work on fluidity of Buller coals in the 1990s provided extensive knowledge of the coal and underpinned Buller coal as a premium coking coal on the world market."

CRL Energy is planning new research related to the safe production of coal, and has set up a spontaneous combustion test facility in the Buller Laboratory (see page 7).

The contact details for CRL Energy's Buller Office are:

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## Silicon nitride nanofibres continue on winning streak



*Electron microscope image of nanofibres taken at 2,500x magnification. The nanofibres are predominantly single-crystal silicon nitride – a high-strength engineering ceramic – which Nuenz is now looking to use in advanced reinforcing applications. Photo: CRL Energy Ltd.*

In early October, CRL Energy was selected as an overall finalist in the New Zealand Innovators' Awards 2011 (Emerging Innovator Award) for the development of silicon nitride nanofibres.

The new method of producing the high-value nanofibres was discovered and developed by researchers at CRL Energy and Victoria University of Wellington, and uses low cost New Zealand feedstocks such as coal, sand, and nitrogen from the air. Instead of exporting raw materials, the technology offers the prospect of exporting high technology materials two or three orders of magnitude more valuable than the coal and sand they are made from.

Dr Troy Dougherty, supervised by the late Dr Tony Clemens, Chief Scientist at CRL Energy, and Prof John Spencer, Head of Victoria University's School of Chemical and Physical Sciences, initially discovered the production method while on a GIF grant from

FRST. After completing his PhD at the University of St Andrews in Scotland he was employed by CRL Energy to work with Victoria University to further develop the process.

The manufacturing process developed can produce silicon nitride nanofibres at a cost an order of magnitude less than the current price of silicon nitride nanofibres and other nanofibres such as carbon nanotubes. The nanofibres production process has now been scaled up with the construction by CRL Energy of a Proof of Concept Plant.

Dr Murray McCurdy, senior engineer on the project, says the concept plant is capable of producing kilogramme quantities. "Silicon nitride is known for its fantastic material properties, it combines high-strength, toughness, and stiffness with excellent thermal properties. Silicon nitride nanofibres can withstand punishing high temperature manufacturing

conditions and deliver excellent reinforcing properties in hi-tech composite materials.

"By lowering the manufacturing cost, nanofibres will be able to be supplied in large quantities, opening up new market opportunities such as polymer composites, metal composites, ceramic composites, nanofluids, and nanocoatings. Nanofibre composites are expected to be many times stronger than current materials."

This technological breakthrough, with patents pending in the US and New Zealand, will provide exciting new opportunities for many industries in New Zealand and overseas. The Ministry of Science + Innovation has endorsed the new technology by investing substantial TechNZ funds into developing and optimising the process.

A spin off company, Nuenz Ltd, backed by a New Zealand private investor and led by CEO John Errington will now take the technology to commercial scale. Nuenz is already operating the proof of concept plant on the CRL Energy site, and work is starting to develop a range of applications for the nanofibres in collaboration with local and international companies.

CRL Energy CEO Dr Rob Whitney says successfully taking the technology to commercial scale will mean that New Zealand science, New Zealand raw materials, and New Zealand capital have combined to produce a world-class industry based in New Zealand and worth millions, if not billions of dollars to New Zealand. "In addition, our early adopter companies will have the opportunity to gain a global competitive advantage from the technology. These companies are likely to be New Zealand SMEs."

## Spontaneous Combustion Tests now at Buller Lab

Both open-cut and underground coal mine operations and product can self-heat and spontaneously combust. A major issue facing the coal industry is reliable hazard management plans with identification of spontaneous combustion potential before mining, during transportation, and when stockpiling coal.

Now internationally recognised spontaneous combustion tests can be carried out in New Zealand at CRL Energy's Buller Laboratory. As well as a boon for mine safety, testing in New Zealand reduces the turn around time for coal samples with no requirement to send samples to Australia or to fill out the paperwork for certificate applications for exporting coal.

Some small scale laboratory test procedures, which use a range of oxidants for self-heating propensity, can be inaccurate as they often have little resemblance to the actual

conditions under which the processes occur in nature. The exception to this is CRL Energy's spontaneous combustion test (adiabatic self-heating test) – R70.

The R70 spontaneous combustion unit measures a coal's propensity to spontaneously combust or self-heat under the influence of pure oxygen. This value then places the coal in one of three categories; high propensity, medium propensity, or low propensity to spontaneously combust. By testing and comparing R70 values for New Zealand coals, the coal industry can better prepare its safety precautions as well as being able to predict the self-heating of similar, yet to be tested, coals.

For more information please contact:

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## CRL Energy scientist has "brightest idea"

From June to October 2010, Dr Troy Dougherty, a scientist at CRL Energy on the forefront of nanofibre development, participated in the Bright Ideas Competition run by Grow Wellington. Out of 1,233 entries Dr Dougherty was awarded the Brightest Idea in the Science Category and runner up in the overall competition.

"Essentially we are creating nanostructured materials that have the potential for a wide range of applications. There are a number of benefits from incorporating nanostructured materials into high-tech devices; however, industry growth has been limited by the high production costs of creating these nanostructures. We've solved this with our unique nanofibre production method.

"My entry in the Bright Ideas Competition was about making high-value materials from low-cost carbonaceous feedstock such as lignite and wood as well as second generation products from these for use in photovoltaics, supported

catalysts for use in the automotive and other industries, and membranes for water purification and gas separation," says Dr Dougherty.

"Supported catalysts represent the largest proportion of catalysts used worldwide. New catalysts are required to advance devices such as flexible solar devices, supercapacitors, fuel cells, and hydrogen generation. Supported catalysts are also used in automotive catalytic converters, hydrocarbon cracking, and chemical synthesis."

Dr Dougherty's research continues with a goal to produce materials that are designed both morphologically and chemically to achieve optimal performance. The first market that is being targeted with the ongoing research is photovoltaics, with new markets being explored for the intermediate material – active carbon.

As part of his prize Dr Dougherty was able to attend \$2,000 of workshops and received \$5,000 of escalator support to help identify initial market barriers.

## CRL Energy library service

Library services are offered by the CRL Energy librarian, Glenys Lloyd, to all members of the Coal Association. Books and reports in the collection may be borrowed, and articles from journals can be requested. The librarian also offers a search service, where databases are searched for relevant items.

Items recently received in the CRL Energy library include:

AusIMM: The Minerals Institute. The Australasian Institute of Mining and Metallurgy 43rd New Zealand Branch Annual Conference: *Driving the economy - investment, productivity and research in the minerals industry*. Australasian Institute of Mining and Metallurgy. University of Auckland: The Institute, 2010.

*Economics of the international coal trade: The Renaissance of steam coal*. Schernikau, Lars. London: Springer, 2010. 242 p.

*Geology of coal fires: Case studies from around the world*. Stracher, Glenn B. (Ed.). Boulder, Col.: Geological Society of America 2007. 283 p. ISBN 9780813741185.

IEA Greenhouse Gas R&D programme. Annual review 2009 London : IEA Greenhouse Gas R&D Programme, 2009.

*Igniting potential: New Zealand's science and innovation pathway*. Ministry of Research Science and Technology. Wellington: The Ministry, 2010. 59 p.

*IMSBC code: International maritime solid bulk cargoes code and supplement*. London: International Maritime Organization. 2009. ISBN 9789280142396

*New Zealand energy greenhouse gas emissions 2010: 2009 calendar year edition*. Wellington: MED. ISSN 1173-6771.

Contact Glenys Lloyd, CRL Energy Librarian, Tel: (04) 570 3700, E-mail: library@crl.co.nz.

As the service is part-time, alternative contact details are:

Glenys Lloyd, Energy Library Tel: (04) 801 8457, E-mail: glloyd@energylibrary.org.nz.

# Coal Association of New Zealand Inc.

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## Associate Membership

Did you know that you can join the Coal Association, even if you are not a coal producer, by becoming an Associate Member?

### Why should you join?

The Coal Association needs the support of Associate Members more than ever, so that New Zealanders can retain access to the plentiful and economic fuel coal. Your support is vital, as the Association attempts to reduce the impact of economic measures, designed to help meet New Zealand's Kyoto Protocol obligations. As an Associate Member, you can keep up to date with happenings in the energy industry by reading the Coal Newsletter, which is sent out twice yearly, and the Annual Review, which every Associate Member receives with an invitation to the Annual General Meeting.

### Other benefits of Associate Membership are:

- opportunities to participate in Coal Association activities;
- opportunities to make your voice heard through Coal Assn initiatives;
- free access to information held by CRL Energy Ltd;
- free short consultations with CRL Energy staff; and
- free updates of recently published coal information.

### What does it cost?

An annual fee of \$350 +GST.

### How do I join?

Ring CRL Energy 04 570 3715 for the details.



**CRL Energy Ltd**

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