



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

www.coalassociation.org
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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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State of the ETS

The controversial Emissions Trading Scheme legislation, which was rushed through Parliament in September last year, is under review by the National-led Government. A select committee is currently considering amendments to the ETS or alternatives to it including carbon taxes. The committee is expected to report back to Parliament in April.

Earlier in the year, Prime Minister John Key has said that a revised ETS was the likely outcome of the select committee, and at the National Power Conference on 24 February, Energy Minister Gerry Brownlee said in his address that the National Party went into the 2008 election committed to a well-considered, carefully balanced Emissions Trading Scheme for New Zealand.

"The Government is very focused on the international negotiations around the successor to the Kyoto Treaty. The efforts of Trade Minister Hon Tim Groser in negotiating our position are aimed at allowing New Zealand to participate in the post-Kyoto world. I am hopeful that the special select committee process will recommend an ETS scheme that will let us do that."

However, talking at an ACT National Conference on 14 March, Cabinet Minister Rodney Hide said it was important that we have a rigorous and quantitative cost-benefit analysis underway. "It's shocking that Parliament committed to the ETS with no regard to the cost . . . we are going to know what experts estimate the ETS will cost us. In the current economic crisis it's nuts to be loading unnecessary costs through the ETS onto businesses.

"We should not be running ahead of Australia. We should put the brakes on the introduction of agriculture into the scheme. We should not have the scheme hitting business hard and costing us jobs. We are

working hard to get a rethink of the ETS and to mitigate the worst of it."

At the very least, the ETS implementation date of 1 January 2010 for coal and gas is likely to be delayed, according to the Climate Change Issues Minister, Dr Nick Smith, when addressing the Select Committee. He also warned recently that unless there was harmonisation there might be an exodus of industry to Australia because of the carbon credits issue. The abatement of credits in Australia is targeted at 1.3 percent a year, for instance, compared with a much steeper eight percent in New Zealand. He said it no longer made sense for New Zealand to focus on a carbon tax when trading partners were focusing on trading schemes.

However, a diverse range of groups from Todd Energy to the Public Health Association have been calling for the ETS to be scrapped altogether and replaced by a carbon tax. On 19 March, Todd Energy managing director Richard Tweedie told the Parliamentary Select Committee that the international market in carbon credits was immature, volatile and open to 'rorting'. Companies would in effect be trying to purchase highly volatile derivatives when their bank balances were being squeezed.

"There is therefore a strong and rational case for deferral of implementation of an ETS until at least such time as a mature and stable international trading market develops."

Advocates of a carbon tax system say by contrast such a tax could offer price stability and the revenue could be retained in New Zealand instead of being sent offshore to purchase carbon credits.

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New energy stats

In the last 10 years, electricity generation has grown by 19%. The New Zealand Ministry of Economic Development estimates that electricity generation will reach 47,800 GWh by 2015.

Geothermal energy is expected to increase significantly in the next decade with a number of large-scale projects announced, including Mighty River Power's 132 MW Nga Awa Purua plant and Contact Energy's 220 MW Te Mihi project.

Coal use increased significantly over the past year reflecting the problem of low hydro-lake levels over the dry 2008 winter (coal use increased by 75% over the 2008 September quarter compared to the same quarter in 2007).

State of the ETS

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Meanwhile, before her decision in February to step down, Green Party co-leader Jeanette Fitzsimons questioned the National Government's ability to meet its emission reduction target (50% of 1990 levels by 2050), in light of proposed changes to policies adopted by the previous administration, such as the removal of the biofuel sales obligation and the repeal of the thermal station moratorium.

Ms Fitzsimons claimed that the ACT Party and the Business Roundtable are pushing for the introduction of a carbon tax in order to delay the introduction of a price on carbon, push any carbon price down, and make climate change legislation easier to repeal in the House. "A carbon tax can be repealed as soon as there are the numbers in the House. An ETS creates property rights and cannot easily be done away with." Some commentators might argue that this is a valid reason not to introduce an ETS rather than the criticism Ms Fitzsimons had intended.

For the Select Committee's consideration, the New Zealand Institute for Economic Research has published a report *Where to from here? – A Sustainable Emissions Trading Scheme for New Zealand*. NZIER concluded that the objective of a New Zealand ETS should be: "To meet New Zealand's emissions reduction targets in the most flexible and cost effective way; to support an effective global response to climate change; and to provide for transitional assistance for the most affected households and firms."

The research company identified a set of principles it believes should be the basis of New Zealand's long term climate change policy if it is to be durable: fiscal neutrality, scientific integrity, regulatory independence and sustainability. NZIER

has developed an alternative ETS because it argues that the ETS contained in the current legislation is inconsistent with all these principles.

NZIER argues that its proposed ETS is superior to the current ETS in relation to effectiveness in reducing emissions, the promotion of efficient resource allocation and investment and the equitable treatment of New Zealanders. The NZIER proposed scheme is also at least as transparent and clear as the specifications of the current scheme, and is more closely aligned with the Australian Government's proposed scheme than the scheme in the current New Zealand legislation.

In his column in the New Zealand Herald on 17 March, energy commentator Bryan Leyland agreed with Tweedie's assessment of 'rorring'. "Because carbon dioxide cannot be measured accurately and serves no useful purpose for the seller or the buyer, there are huge opportunities for fraud." Leyland, in favour of neither an ETS nor carbon tax, goes further to point out, "the 'risk' that man-made global warming is real must be considered. A carbon charge is not going to make much difference to the climate because, according to the IPCC's computer models, Kyoto, if fully implemented, would decrease world temperatures by 0.06C by 2050. So we can be confident that we will never notice any climate change [impact] from the trading scheme. All it will do is damage our economy and make it even more difficult to adapt."

Meanwhile, on 20 March, Nigel Brunel, from OMF Financial, announced they have brokered New Zealand's first ETS deal; the sale of forestry credits (NZUs) between an undisclosed forestry grower and an undisclosed buyer, possibly offshore, at 20 percent less than the CER (Certified Emission Reduction credit) price.

Coal Association ETS submission summary

The Coal Association believes that at the highest level New Zealand climate change policy should be framed around two issues. Firstly, that effort is sufficient such that, as a country, we have credibility in the international forum. Secondly, that policy must provide a long term, adaptable and flexible framework that is guided by principles that are transparent and understood, and governance that provides 'certainty' for business. The ETS as currently legislated fails on both these issues.

Whether New Zealand starts with a low level carbon tax, or a significantly modified ETS, our key overriding objective must be to preserve and build our competitiveness in the current challenging global economic climate. To do this we must:

- Delay the implementation of the current legislation;
- Move towards a mandatory greenhouse gas emissions reporting scheme for major emitters similar to the Australian scheme;
- Develop cross party and stakeholder support for a long term policy framework; and
- Agree on a clear set of principles that will guide policy, implementation and stringency over the long term.

The principles that the Coal Association believes policy should reflect are:

- This is a global problem and our contribution should be economically and environmentally rational in that global context;
- Priority needs to be given to robust economic analysis that demonstrates the scheme coverage for each greenhouse gas and each sector will drive investment in low emissions technology solutions;
- We should meet our international obligations – at least cost;
- Policy should be flexible so that changes can be made as global issues dictate;
- Fiscally neutral;
- Policy implementation needs to include the key issue of assistance to trade exposed firms competing with overseas firms that are not subject to as rigorous emissions obligations; and
- Governance of ongoing policy implementation to be run by an independent body.

If the outcome of this review (and associated political decisions) is to simply modify the current legislation, then these are some of the recommendations that the Coal Association believes would be essential if an ETS is to have any chance of being effective at this time.

1. Provide 100 percent free allocation for trade-exposed companies to preserve their international competitiveness until other countries place similar carbon pricing on goods against which New Zealand competes.
2. Provide a pool of units for new entrants.
3. Adopt intensity-based measures with a wider choice of base-year selection. This will create a flexible cap that represents a good balance of environmental and economic integrity. It will also have the benefit of providing for investment in expanded production and for new entrants.
4. The phase out of transitional assistance should be subject to a review process under independent governance that specifically considers the carbon price exposure of overseas competitors.
5. Exemption mechanisms with lower transaction costs should be explored for transitional assistance for trade-exposed medium-scale emitters.
6. Gases and sectors only to be included where appropriate technologies are available and a suitably thorough cost-benefit analysis has been carried out to justify inclusion.

Ban on thermal removed

The new Government has removed the ban on new thermal baseload electricity generation. Energy Minister, the Hon. Gerry Brownlee described the ban as "a piece of political symbolism that endangered security of supply."

"The Government wants investment in new electricity generation to occur on the basis of sound economics, rather than through ruling out particular options on the basis of ideology," he said at the National Power Conference on 24 February.

Coming Events

New Zealand

16-17 Apr 2009, NERI'09 "Knowing More, Doing Better," Contact: Anne Hindson, NERI'09 Conference Organiser. Tel: 0274 317575, Email: conference@neri.org.nz. Web: <http://neri.org.nz/conference09/>

22 Apr 2009, 11am - 2pm, InterContinental Wellington EFNZ Annual General Meeting; Shell Global Scenarios Lunchtime Seminar with Rob Jager, Country Chairman, Shell NZ Ltd; Roundtable workshop on WEC Assessment of Energy Policy and Practices Study "How does in New Zealand rate?" Contact: Cito Gazo, Email: C.Gazo@crl.co.nz

27 Apr 2009, 9am - 5pm, InterContinental Wellington, "Carbon Capture and Storage: Where are we now?" - One day Coal Association of New Zealand Seminar featuring speakers from the IEA-GHG R&D Programme, CS Energy, and the New Zealand CCS Partnership. Contact: Cito Gazo, Email: C.Gazo@crl.co.nz

International

20-21 Apr 2009, 7th Coaltrans China conference, Beijing, China. Contact: Coaltrans Conferences Ltd, London, Tel: +44 20 7779 8945, Email: registrations@coaltrans.com, Web: www.coaltrans.com

27-30 Apr 2009, Coal Prep 2009 conference, Lexington, KY, USA. Contact: Al Deurbrouck, Pittsburgh, USA, Tel: +1 412 653 0281, Email: adeurbrouck@earthlink.net, Web: www.coalprepshow.com

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Pike River Coal hampered by rock fall

On 3 March, Pike River Coal Limited announced it will raise NZ\$45 million through an issue of ordinary shares, with accompanying bonus options, to provide funds until steady state production from its mine, about 50km northeast of Greymouth, is achieved.

The decision to raise cash at this time follows a rock fall from the lower section of the new 108-metre ventilation shaft halting mining operations until ventilation can be re-established. The shaft is critical to venting mine air and gases to the surface and providing fresh air to the mine face for mining to operate safely.

Following the successful raise boring of the ventilation shaft in January 2009, the construction contractor commenced at the surface to bolt and mesh the walls of the shaft working down towards the coal seam. Due to the potential for falling rock, it is not possible to work in a shaft below an unsupported area. The top 66 metres of the shaft was successfully supported and stabilised, prior to the rock fall affecting a zone of nearly 30 metres near the bottom of the ventilation shaft.

The rock fall has delayed the production ramp-up period by two to three months and delayed first coal sales proceeds to the third quarter of 2009 (ended 30 September). First exports of coal from the mine had been expected in April.

First hydro monitor production (a high pressure water cutting system) is now scheduled for the fourth quarter of 2009 (ended 31 December), assuming the company can get the money to pay for the equipment.

As a consequence, Pike River Coal has been required to fund the final capital expenditure payments, largely for hydro-mining equipment, from a new equity issue instead of first coal sales proceeds. The issue will also provide some working capital and cover the estimated \$7 million cost to remedy the

shaft, a portion of which may yet be covered by insurance.

"Demand for the ultra low ash premium hard coking coal from Pike River Coal's estimated 58 million tonne resource remains strong notwithstanding the difficult world economic conditions," says Chief Executive Gordon Ward.

"We are seeking to mitigate the effects of the delay and will be meeting with our steel mill and coking plant customers shortly to appraise them of the status at the mine and to discuss the shipment schedules.

"The rights issue is being attractively priced for our shareholders who have shown strong support as the mine progressed through the development phase."

The company's principal shareholder, New Zealand Oil & Gas Limited (NZOG), has committed to take up its 29 percent pro rata share of the new shares issued.

Lead Manager for the issue is McDouall Stuart Securities Limited.

A Prospectus for the rights issue and an accompanying entitlement and acceptance form is expected to be mailed to shareholders on or about 25 March 2009 and will be available to view online at www.pike.co.nz. The Offer is expected to open on 25 March 2009 and close on 14 April 2009.

Australian coal producers have commenced negotiations for the benchmark price for hard coking coal supplied to Japanese steel mills from 1 April 2009. Market observers are tipping hard coking coal prices in the range of US\$130 to \$140 per tonne, well above the US\$95 per tonne estimated at the time of the Company's Initial Public Offering (IPO) in mid-2007. The fall in the value of the New Zealand dollar exchange rate relative to the United States dollar by approximately 30 percent since the IPO will also boost New Zealand dollar revenues.

CSG electricity connected to grid

Solid Energy announced in November last year that it has hooked up its new 1MW CSG driven generator near Huntly to the national grid. This is New Zealand's first electricity supplied by CSG, and is currently powering 500 to 800 homes.

Solid Energy Chief Executive Officer, Dr Don Elder says gas from the Huntly wells contains only one percent CO₂ and has 98 percent energy-rich methane.

"That means the gas has a lower carbon footprint than conventionally-produced natural gas, which up until now was New Zealand's cleanest thermal power."

The on-site generator is currently fed by four wells taking gas from a 32 hectare section of the coalfield. Gas flow from this small pilot has the potential to power as many as 1000 homes but it is not yet known if the local network connection can accept that much electricity.

"This energy is being generated in a rural environment, surrounded by cattle – it's not the sort of place where you'd expect to be producing power – but we're working with WEL Networks to increase what we can put onto the grid from that location," says Dr Elder.

The pilot coal seam gas field was developed through a joint venture between Solid Energy and USA oil and gas company, Resource Development Technologies.

The joint venture company, Coal Bed Methane Ltd, undertook three years of exploration and assessment before generating electricity. Low pressure pipes take the gas from the well heads to an onsite gas generator which is connected to the grid via overhead power lines.

"If New Zealand can continue to develop its coal seam gas reserves, they could meet up to 10 percent of the country's gas demand," says Dr Elder.

L&M CSG interests

Christchurch-based L&M Coal Seam Gas Limited also has interests in CSG with five exploration permits covering 5,580 square kilometres in the Waikato, Central Otago, Kaitangata and Southland. Their current assessment is that the permits have the potential to contain an energy resource in the order of 1,100 petajoules.

L&M plans to begin commercialising their CSG resources over the coming months, with separate multi-hole pilot programmes aimed at certifying initial gas reserves.

Kaitangata, 50kms south of Dunedin was the first to be drilled this year. The field is estimated to have a potential resource of 54PJ and contains some two billion tonnes of sub-bituminous coal at depths up to 500 metres and seam thickness of about 15 metres. L&M expects to have its first tranche of Kaitangata CSG by mid-2009.

The Ohai field is also undergoing a five-well pilot drilling. The field has a high CSG concentration of 10 cubic metres of gas per tonne of coal. There are multiple seams here, some up to 15 metres thick with depths ranging from 50 to 800 metres. A five-well pilot is also planned for this year at the Hawkdun lignite field north of Alexandra.

L&M say initial uses of CSG are likely to include distributed power generation and supplying gas to industry, and perhaps supplying some as compressed natural gas (CNG) for South Island motor vehicles.

Coal seam gas provides 15-20 percent of gas supply in the United States and Australia's eastern states, with the figure climbing to 70 percent in Queensland.

Don Elder elected to chair World Coal Institute



Chief Executive of Solid Energy Dr Don Elder has been elected Chairman of the World Coal Institute at the 48th WCI Board Meeting held in Brussels on 5 November 2008. He succeeds Preston Chiaro.

On his appointment, Dr Elder commented: "Energy underpins economic prosperity and social wellbeing. Supply of secure, affordable energy is increasingly one of the greatest challenges facing the world and coal is an increasingly critical component of the supply mix, but also must rise to the challenge of supporting environmental sustainability. The World Coal Institute is the global organisation representing almost all the world's leading coal producers. It is a great honour to be asked to chair the WCI at one of the most exciting times in the history of the industry."

Dr Elder is also the Deputy Chairman of the Coal Industry Advisory Board (CIAB) to the International Energy Agency (IEA).

Coming events cont.

18-20 May 2009, 4th International conference on clean coal technologies, Dresden, Germany. Contact: IEA Clean Coal Centre, London, UK, Tel: +44 20 8780 2111, Email: mail@iea-coal.org.uk, Web: www.iea-coal.org.uk

1-3 Jun 2009, 15th Coaltrans Asia conference, Bali, Indonesia. Contact: Coaltrans Conferences Ltd, London, UK, Tel: +44 20 7779 8945, Email: registrations@coaltrans.com.

13-14 Aug 2009, 5th Coaltrans Australia conference, Brisbane, Qld., Australia. Contact: Coaltrans Conferences Ltd, London, UK, Tel: +44 20 7779 8945, Email: registrations@coaltrans.com.

19-21 Aug 2009, Coal-Gen 2009 conference, Charlotte, NC, USA. Contact: Jennifer Lindsey, COAL-GEN 2009 Registration, Tulsa, USA, Tel: +1 918 832 9313, Email: jenniferl@pennwell.com. Web: www.coal-gen.com

25-27 Oct 2009, Coaltrans London 2009 conference, London, UK. Contact: Coaltrans Conferences Ltd, London, UK, Tel: +44 20 7779 8945, Email: registrations@coaltrans.com.

26-29 Oct 2009, 15th International conference on coal science & technology (ICCS&T), Cape Town, South Africa. Contact: Mrs Angelique Freyer, Syngas and Coal Technologies, Sasol Technology Research and Development, Sasolburg, South Africa, Tel: +27 16 960 4505, Email: angelique.freyer@sasol.com, Web: www.iccst.info

CRL Energy's international CSG work

CRL Energy's Geology Group in Christchurch have for the last six years been on the cutting edge of helping several New Zealand clients with coal seam gas (CSG) interests, however, in the last financial year, the service has expanded to assist clients in Australia, Vietnam and Indonesia.

Dr James Pope, Manager of the Geology Group, says CRL Energy's expertise in the measurement and analysis of gas desorption (release of gas) data from freshly drilled coal samples, and their ability to reliably predict the gas production performance and reserve potential of coal seam gas reservoirs, has captured the attention of energy companies off shore.

"Among other contracts, our field geologists have this year teamed up with PT Geoservices, an Indonesian company, where they are supplying the logistics and field staff, and we are providing our expertise to oversee the work. Exploration for CSG in Indonesia is at grass roots stage and the potential is huge," says Dr Pope.

CSG also called coal bed methane (CBM) or coal seam methane, is mostly methane in composition and is adsorbed to micropore surfaces within coal at near liquid methane density. This gas is extracted via wells which are drilled down into coal seams. The gas is released from the coal along natural fractures and cleats (desorbed) when pressure on the coal seam is reduced, usually by removal of water from the seam.



From left, CRL Energy technician Hayden MacKenzie, and environmental hydrologist Dave Trumm, with Nadia Ariana and Agus Budiluhur from PT Geoservices. Behind is the drill rig used for the first CSG exploration hole in Borneo.



CRL Energy field geologists working with geologists from PT Geoservices in Indonesia. Photo: Hayden MacKenzie, CRL Energy Ltd.

Various techniques can be used to enhance the rate of desorption. Mostly these relate to enhancing gas flow into the well through under-reaming or hydrofracturing the coal. Trials are currently being conducted on pumping of carbon dioxide into the reservoir to increase field pressure and increase the flow of methane (enhanced coal seam gas - ECSG or ECBM). This technology, if successful, provides a double bonus as the CO₂ is sequestered and the methane released.

"Until recently, CSG has been overlooked as an alternative to natural gas, but perceptions that CSG is an unconventional gas and only a small resource are diminishing and it is becoming an increasingly important energy resource throughout the world. Indonesia has estimated CSG deposits of 453 trillion cubic feet (tcf), or about 82 billion barrels of oil equivalent (boe), the world's second-largest after China."

The Indonesian Government is reported to be aiming for a daily coal seam gas production of about 1 billion cubic feet (bcf) by 2025. They also plan to build several CSG LNG plants in the next two decades.

Work by CRL Energy to develop technologies for CSG exploration and resource assessment in New Zealand's low rank coal resources was initiated through a Technology for Business Growth grant from the Foundation for Research, Science and Technology (FRST).

CRL Energy hosts British energy experts

On 3 February, CRL Energy hosted a delegation of British clean and renewable energy experts at its Lower Hutt facility. The delegation was part of a 'UK to NZ Energy Mission' sponsored by the British High Commission and was in Lower Hutt as part of a business roundtable, which included GNS Science and IRL, to discuss carbon, capture and storage (CCS) projects in both countries, and to examine opportunities for collaborative research and investments in CCS R&D, and the sale and purchase of existing IP or products.

Delegates included Dr Steve Bouzalakos, a Research Fellow at the Centre for Innovation in Carbon Capture and Storage (CICCS), University of Nottingham. His research is focused on geological storage and mineral carbonation processes for CO₂ sequestration. Dr Bouzalakos says he is interested in expanding the international collaboration and network of CICCS and developing innovative research projects on carbon capture and storage. He sees several New Zealand research providers as suitable candidates for that aim.

Phillip Cozens, Head of Technology Development, Progressive Energy Ltd, delivered a presentation on the Eston Grange integrated gasifier combined cycle gas turbine (IGCC) and CCS project at Teeside.

The project comprises high pressure gasification of

coal followed by synthesis gas shift to recover carbon dioxide before combustion, combustion of hydrogen in a combined cycle power plant, and pumping, transport and storage of carbon dioxide in a saline aquifer beneath the North Sea, where there is the potential also to use the carbon dioxide for enhanced oil recovery. With the knowledge acquired in developing this project over ten years, Mr Cozens says his objectives on the trip to New Zealand include promoting the merits of this type of low carbon energy concept and examining the potential for technical co-operation for deploying this concept in New Zealand, especially given the focus in New Zealand's energy strategy for hydrogen use.

The delegation also toured GNS Science and IRL while in Lower Hutt.

Grid problems global

Dr Donald Hepburn, a UK electricity infrastructure expert from Glasgow University, says power systems all over the world are in a similar state to New Zealand's. Most countries power grids were set up around the same time, in the 1950s and 60s. He says Britain's power infrastructure is 40 years old and it could take up to 110 years to update it. Dr Hepburn says blackouts like the ones in Auckland recently also occur in London.

Coal prep essential for viability of coal

An upturn in the coal industry, and the recognition of the value of coal preparation, has seen CRL Energy's Gracefield coal preparation laboratory busier than ever. In the past financial year the laboratory has expanded, including increasing the float/sink area to process larger samples. In addition, CRL Energy has invested in staff training and new equipment. New equipment includes a Denver Cell to provide froth flotation testing that meets Australian Standards. To help with the cell's commissioning an Australian consultant was engaged to train several staff in the idiosyncrasies of froth flotation.

Trevor Dine, manager of the Analytical and Environmental Business Group at CRL Energy, says basic coal preparation is the removal of impurities from run-of-mine (ROM) coal by using a series of separation processes in a washery or preparation plant.

"The type of testing we do here in the laboratory is crucial for coal producers for determining what needs to happen in their coal preparation plants (CPP). When coal is prepared in a plant they want to remove all the extraneous non-combustible material - particularly if the coal is fuel for thermal power generation, where cleaning it up at the plant reduces ash handling and sulphur, carbon and NOx emissions. Coal producers also benefit from reduced transport costs etc. per unit of heat and they provide a consistent, uniform product to their clients. Coal preparation is essential for the economic and

environmental viability of coal, especially for thermal power generation where coal users need optimum calorific value, consistent grindability, minimal moisture and ash variability," says Mr Dine.

Testing in the CRL Energy coal preparation laboratory involves a number of steps:

1. The ROM coal sample is crushed to the desired topsize. At the CPP, crushing reduces the size of the coal pieces so that it can be more easily handled and processed. Crushing requirements are an important part of CPP design.
2. The coal is subject to a 'drop shatter' test. In the laboratory this simulates the coal breaking as it moves around the plant.
3. Size analysis of the coal pieces is carried out.
4. The sample is then subject to a 'float/sink' test, where different density liquids are used to separate the minerals and other contaminants from the coal.
5. Finally the sample is tested using 'froth flotation'. The newly acquired Denver Cell is the industry standard for froth flotation. This gives a semi-quantitative indication of the results that may be achieved in a washery.

For more information about services at CRL Energy's Coal Preparation Laboratory contact Trevor Dine or Grant Murray, Laboratory Supervisor - Solid Fuels. Tel: (04) 570 3700.

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.



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