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## Coal Action Network Back–grounder on Lignite mining

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### Lignite

The recent expansion of the mining industry to develop Lignite in Southland and Otago represents a very real and major threat to our climate. Coal Action Network has prioritised this as a major focus and have vowed to fight this incredulous expansion of the industry.

Two companies, State–owned Solid Energy and privately owned L & M Lignite, are currently assessing the feasibility of lignite conversion schemes in Southland. Solid Energy will soon announce resource consent applications for the first of its projects.

At least 6.2 billion tonnes of lignite is technically and economically recoverable in 10 major deposits in Otago and Southland. The in–ground lignite resource is approximately 11 billion tonnes.

### **What is Lignite?**

Its a yellow to dark brown, rarely black, coal that has been formed from peat under moderate pressure; it is one of the first products of coalification and is intermediate between peat and subbituminous coal. Dry lignite contains about 60 – 70% carbon. Almost half of the world’s total coal reserves contain lignite and subbituminous coal, but lignite has not been exploited to any great extent because lignite is inferior to higher–rank coals (e.g., bituminous coal) in heating value, ease of handling, and storage stability.

Solid Energy is currently investigating several options for converting its lignite resources in Southland (estimated at 1.35 billion tonnes) to energy forms and products. This includes developing a lignite–briquetting plant, a lignite to diesel plant, and assessing the viability of a lignite–to–urea plant with Ravensdown. These could all be built in one large Industrial Park. Three possible sites for this plant have been mentioned, one near the New Vale mine, one near a disused Mataura paper mill, and another near a mine pit south of Mataura. Solid Energy is currently in discussion with Environment Southland regarding resource consents and these sites.

**Lignite Briquetting**– Solid Energy recently announced plans to next year (2011) start building a lignite briquetting plant producing 65,000 to 100,000 tonnes a year for the domestic market with a proposed expansion to 1 million tonnes for the export market by 2014. Domestically briquettes would most likely be going to Fonterra. Internationally, the briquettes would have to compete with sub–bituminous coal on the international market. The site for this plant would most likely be part of the proposed industrial park discussed below.

**Lignite to Liquids**– Solid Energy recently announced it will next year (2011) start construction of a lignite to liquids pilot plant. This plant will initially be capable of converting lignite or biomass into higher quality coal or synthetic crude oil. Solid Energy had an agreement with Australian company, Ignite Energy Resources Pty Ltd (IER) securing the exclusive New Zealand rights to a technology which converts low energy feedstocks, such as lignite and biomass, to high–grade coal and synthetic crude oils which have the potential to be upgraded to transport fuel. The proposed commercial pilot plant initially produce 10,000 barrels of crude and 5000 tonnes of char, a powered form of pure

carbon. Solid Energy hope it will be capable of expansion to a 1 million tonnes per annum facility in 2017..

UPDATE:

In October Solid Energy ended its existing agreement with Ignite Energy Resources after being unable to seal a licence agreement.

**Lignite to urea plant**– In September last year Solid Energy announced it had engaged a joint venture with agricultural fertiliser supplier Ravensdown to assess the viability of building a US\$1 billion plus coal-to-fertiliser plant with a view to making New Zealand self sufficient in, and potentially an exporter of, urea– a nitrogen fertiliser used to enhance grass growth. Solid Energy recently announced the plant could be built in 2016, producing up to 1.2 million tonnes a year of urea from up to 2 million tonnes a year of lignite. Government subsidy–In September 09 the Sustainability Council raised the fact that the proposed urea plant would qualify for subsidies worth more than \$500 million over the first 20 years of the plant’s life under changes to the ETS.

L & M Lignite are the other big player in lignite. Part of the larger L & M Group their Lignite subsidiary L&M Lignite Limited currently has five exploration permits covering 210 square kilometres in Hawkdun, Matura, Edendale, Morton Mains, Waimatua, Kaitangata and Ashers Waituna. Their exploration has identified resources of approximately 2 billion (plus privately held coal which may be able to be acquired). Environmental and feasibility studies into the production of liquid fuels, petrochemicals, electricity generation and methanol are being conducted.

At an Otago Chamber of Commerce meeting in Alexandra in May, L&M Group financial controller Shirley Herridge said the company was “looking at (the possible Hawkdun plant) very seriously”. Conceptual plans for a mining plant at their Hawkdun site near St Bathaans in Central Otago reveal a multibillion-dollar refinery covering 70ha. The firm proposed using the Fischer–Tropsch method to convert lignite to gas, which in turn can be converted to diesel.

2011 is shaping up as a very big year for the campaign against mining Southland lignite. Solid Energy has announced plans for its pilot lignite briquetting plant in Southland, the first stage of its massive plans to exploit Southland's lignite reserves. And a wide range of local and national groups are gearing up to stop them.

Before we get onto the latest developments, here are two important messages about this list:

**A) This list is for you to use.**

So far, this mailing list has been used mainly for announcements and updates from the Coal Action Network. But that's not all it has to be used for. Anyone on the list can post news, discussion points, or requests for help and information. To do so, you just need to send a message to [coalactionnetwork@lists.riseup.net](mailto:coalactionnetwork@lists.riseup.net)

**B) We need to get lots more members of this list – and you can help**

The campaign against the expansion of coal mining in Aotearoa New Zealand is growing. But it needs to grow a lot more. We think there are a lot of people out there who are concerned about this issue, or who would be if they knew about it, and who will want to get involved in this campaign.

If you know people who would like to get involved, or if you have people you think we should approach about joining the list, please send their names and email addresses to [coalactionnetwork@gmail.com](mailto:coalactionnetwork@gmail.com), and let us know whether you already have their permission to add their names to our list.

And now for the news...

### **1) Coal Action Network Public Meetings Announced**

The Coal Action Network is going public with a series of meetings explaining why the mining of Southland lignite is such a disastrously bad idea, and encouraging people to join our supporters' list and get active in the campaign. Jeanette Fitzsimons, climate change campaigner and former co-leader of the Green Party, will be the featured speaker at the meetings. So far, the details of the Wellington meeting are confirmed:

### **3) Solid Energy Spills The Beans**

Solid Energy has always been prone to PR slip-ups, and it appears that its recent announcement of its preferred site for its pilot lignite-to-briquettes plant in Southland may have been a case of a Solid Energy spokesperson saying more than he was supposed to, rather than deliberate strategy.

In any case, the cat is out of the bag: as reported by the Southland Times, "Solid Energy plans to build its pilot briquetting plant south of Mataura, at the site of its former mine in Craig Rd, but a large commercial plant, if it went ahead, would probably be in the Croydon area, near Gore." – see

<http://www.stuff.co.nz/southland-times/news/4572621/Site-for-Solid-Energys-pilot-plant-revealed>

<http://www.stuff.co.nz/business/industries/4574618/Solid-Energy-plans-briquette-plant>

Solid Energy also announced that it would be proceeding with resource consent applications soon – the proposed site for the pilot plant will face less consenting requirements than the other possible sites.

This pilot briquetting plant is the thin end of the wedge. Solid Energy want to get their first lignite conversion plant up and running as soon as possible, so that it is harder to stop subsequent, larger, dirtier developments. This plant has to be stopped, and we expect it to face intensive opposition – see subsequent updates for more on how you can help with that.

Here is Scoop's coverage of the Coal Action Network's statement in response to the announcement:

<http://www.scoop.co.nz/stories/PO1101/S00084/coal-action-network-slams-lignite-plans.htm>

Here is Greenpeace's response to the announcement:

<http://www.greenpeace.org/new-zealand/en/press/Briquette-plant-a-crime-for-which-Fonterra-and-Government-will-share-guilt—/>

### **4) Lower Mataura Landcare Lignite Backgrounder: Getting A Copy**

As the first Southland Times article linked above makes clear, there is strong local opposition to the project, notably from the Lower Mataura Landcare group.

Lower Maitua Landcare (LMLC) has prepared a comprehensive background on the Southland lignite. It's particularly revealing on the local environmental effects in Southland, which haven't yet received much coverage in the national media.

At 1.3MB, the LMLC background is too large to circulate on this list. If you'd like a copy, please email [coalactionnetwork@gmail.com](mailto:coalactionnetwork@gmail.com) and I'll send you one as a PDF file.

### **5) They're Blue-Green, Just Like Algae**

While the Government presses ahead with its plans for massive carbon emissions on one hand, it is still trying to preserve the fiction that it has some environmental credibility on the other. National's environmental fig-leaf is called the BlueGreens, and the Government used the recent BlueGreens conference to make announcements about marine reserves, a clean technology working party, and other green-sounding things. But Greenpeace has pointed out the absurdity of the Government's green pretensions when juxtaposed with its coal-mining and oil-drilling plans:

<http://www.greenpeace.org/new-zealand/en/news/blog/bluegreens-gave-me-the-blues/blog/32756>

"At the heart of the Government's thinking is an hypocrisy that undermines climate action. The Government talk about a clean economy, yet they invest millions in subsidising the fossil fuel industries of yesteryear. It backs moves to dig up six billions tonnes of the dirtiest form of energy in Southland – which would amount to a climate crime of global significance – and have just declared open season on BP-style deepwater oil drilling in some of our most pristine environments."

The Government is going to have to try a great deal harder than that to be taken seriously on climate change policy. Ending all plans to mine Southland lignite would be a good start. You might want to remind your nearest National MP of that.

Till next time,

Regards

Tim Jones

for the Coal Action Network

Kia ora

Nick Smith is quoted as saying coal is climate enemy no.1:

"The burning of coal is the dirtiest form of energy and the single largest global source of greenhouse gases." – Nick Smith 2007 (now climate and environment minister)

here is a recent speech in parliament (which has content on climate and lignite):

<http://www.greens.org.nz/speeches/climate-change-lignite-growth-debate-pms-statement-dr-kennedy-graham>

(<<the whole speech is here)

we disagree is over his blithe assumption that raping the planet for 19th century – style profit is a realistic plan. It is unrealistic to the point of criminal negligence...

...the emissions trading scheme does nothing of the sort. It is accurately described by Geoff Bertram and Simon Terry as a mechanism not for reducing emissions but of transferring wealth, as emissions

increase. They say that the scheme has not been designed to promote economically efficient abatement; it has been designed, first, to protect and promote the position of vested interest

Dr Smith said the following: "It is ironic that while we try and design pricing instruments to recognise the environmental cost of emissions, the world spends hundreds of billions of dollars a year subsidising fossil fuels and pollution. If we are serious about addressing climate change in the most efficient way, we need to be discussing a phase-out of such support." Mr Brownlee, who prefers energy security to climate responsibility, said the following: "The PCE report on the emissions increase to be caused by the lignite projects is a separate report. It has nothing to do with the Energy Strategy."

Let me say to the Ministers, and to Solid Energy, that the amount of fossil fuel remaining on the planet is finite. If all the remaining fossil fuel is extracted and burnt, we shall massively exceed the planet's climate-change boundary. Neither energy efficiency nor renewable energy will save us, unless most of the fossil fuel that would otherwise be mined stays in the ground, and stays there forever. It is implausible that any conventional oil will be left in the ground, but it is possible and necessary to phase out coal, on a straight-line basis, up to 2030. That is an unpalatable truth to anyone thinks that coal is sexy and that dirty coal is the sexiest of all. It remains a truth nonetheless, and this Government had better get over it. We simply cannot afford to be, in the 21st century, "filthy" rich.

I say to the Government and to Solid Energy that every tonne of coal that stays in the ground in New Zealand forever is two tonnes of carbon that will never reach the atmosphere. Both have an obligation to ensure that the lignite never sees the light of today, lest tomorrow's daylight becomes clouded by a hot and stifling atmosphere. It is time we came to our senses.