

# Presentation to Local Government and Environment Committee

## Lignite and Climate Change: The High Cost of Low Grade Coal

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18 August 2011



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Te Kaitiaki Taiao a Te Whare Pāremata

## Lignite and Climate Change: The High Cost of Low Grade Coal

Lignite is very poor quality coal.

New Zealand has a lot of it.

But so do many other countries.

The lignite we have is in Southland and Otago.

It's easy to get at – you can see how it sits in layers in the photo on front of report.

Some lignite is already being burned – for example, in the Edendale dairy factory.

But there are plans to increase the amount of lignite mined a hundred times or more.

And convert the lignite into three products.

- Briquettes – the old name was carbonettes.
- Urea – nitrogen fertiliser.
- Diesel. I am particularly concerned about diesel.

Some say New Zealand cannot afford not to exploit the lignite.

I say there are better ways to go.

Whatever you do with lignite – whether you burn it directly or convert it into something else -- you end up with lots of unwanted carbon dioxide – greenhouse gas.

The plans for the large scale use of lignite go back to the 1980s.

Like many other countries, New Zealand developed a policy of being self-sufficient in energy after the oil price shocks of the 1970s.

And the plan for using lignite on a very large scale was hatched then – at a time when only a few scientists were concerned about climate change.

Would we do the same if we were starting now? I doubt it.

Can we use lignite and deal with the carbon dioxide?

It's far too soon to say yes.

Let's look at the two big players here – our state owned enterprise Solid Energy and L&M Mining.

L&M Mining are so far largely silent about their plans.

But Solid Energy speaks about taking “*full responsibility*” for carbon emissions.

I applaud the sentiment but am puzzled as to what this actually means.

There are at least three possibilities.

First, at a minimum it could be simply complying with the regulations in the Emissions Trading Scheme.

This compliance could well cost the taxpayer more than the polluter.

Under the current rules in the ETS, the taxpayer could end up subsidising a lignite-to-diesel plant to the tune of a quarter of a billion dollars per year.

A second possibility is that taking “*full responsibility*” could be refusing to accept any subsidy in the form of free carbon credits.

And a third possibility is that taking “*full responsibility*” could be storing (sequestering) all the carbon dioxide emissions associated with these projects – below the ground or in trees.

I cannot see that taking “*full responsibility*” can be anything other than complying with the law.

Because going further than your competitors means forgoing profit and why would they do that?

In last Saturday’s Press, the Chief Executive of Solid Energy, is quoted as saying the company’s plans include capturing and storing all the carbon dioxide produced when lignite is converted to urea and diesel.

But I do not understand how Dr Elder can commit the Board of Solid Energy to expenditure in the future that would make the company less competitive.

Indeed it would be interesting to know whether the current Board has a view on this.

If there are plans for carbon capture and storage, they should be made explicit.

Otherwise we cannot know whether they are viable.

And it’s really vital to know this because the amount of carbon dioxide that would be produced is so great.

What would the development of lignite do to New Zealand’s greenhouse gas emissions?

At Copenhagen, we made a commitment about greenhouse gases for the year 2020.

We are on track to miss that commitment by a country mile.

Our commitment was to 10% to 20% below 1990 emissions by 2020.

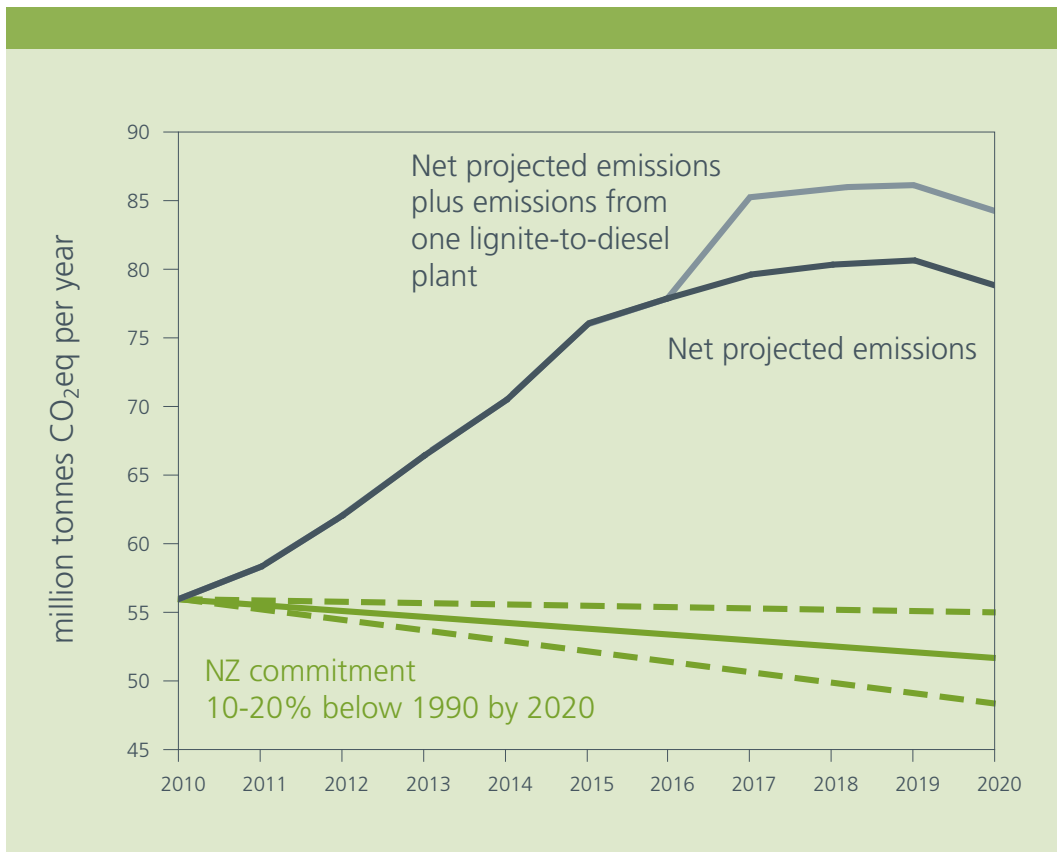
But instead of 10 to 20% below, Government projections are for 30% above.

That's a really big gap.

And that is without large scale development of lignite.

The lignite-to-diesel plant planned by Solid Energy would increase the size of that gap by 20%.

The graph below taken from p39 in the report shows this.



The lignite-to-diesel plant that L & M Mining has spoken of would add another 30%. That's a 50% increase in the gap from two lignite-to-diesel plants.

Yes – we can buy carbon credits offshore to make up the difference.

But being so dependent on carbon reductions in other countries is a poor look for a country that brands itself internationally as clean and green.

I have also seen claims that producing diesel and urea from lignite will mean lower prices for New Zealanders.

Cheaper diesel and cheaper fertiliser.

But diesel, urea and briquettes are all commodities that are traded internationally at world prices.

So if we produce them here we will still pay world price as we do for oil.

Then there is the jobs argument.

Southland has the lowest unemployment rate in the country.

We currently bring people from other countries to milk the cows down there.

The world is not short of lignite.

We are not unique in having lots of it.

This is not the way ahead for a clean green country.