

OLD KING COAL, A Not So Merry Old Soul;

Why a PM of either old party will have so much difficulty in changing the direction of Australia's greenhouse gas output in a comprehensive, effective or timely way or how the merry old coal industry, hand in hand with queen oil and the new joker, gas, will lead us into dangerous climate change regardless of the evidence of the negative impacts.

“We cannot afford to wait for full scientific certainty about climate change because that may never come, or simply come too late and we must take a balance of evidence approach.” Dr Bryson Bates, Research Manager, Indian Ocean Climate Initiative

Taking a meaningful approach, based on the balance of evidence, will require massive changes to the Australian economy and to the communities attitude to material wealth expressed through the consumption of goods, if we are to reduce our impact on the climate through global heating.

Per capita Australians lead in the production of atmospheric CO₂ to support our national lifestyle. We cannot expect the rest of the world to take measures that limit greenhouse gas production and thus their actual or potential consumption of goods whilst Australia fattens on continuing to contribute to global heating.

This is the moral imperative for our small economy to be involved in reducing emissions through a global agreement and the second round of Kyoto, which is up for implementation in 2012 when the fifth assessment report of the Intergovernmental Panel on Climate Change is also due.

There may be no direct consequences of non involvement, but, if the world manages to set in place protocols under the second round of Kyoto, then Australia will find itself distanced further and further from the evolving economic opportunities that come from adapting to and mitigating the impacts of climate changes to avoid the dangers it presents.

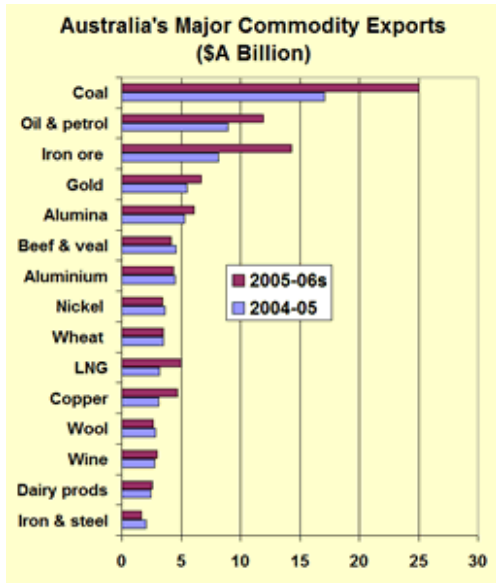
Playing catch-up later will have its costs, both financial and of standing among peers.

Of course taking no or too little action may find itself as the leading political solution in many capitals, taking the whole world into the uncharted territory of the climate modelers with the possibility that whatever action we take will be too late to avoid triggering runaway climate change.

To turn the world's economies around will take time. That is why immediate action has been critical. It increases the chance of success and thus limits the cost. Deniers,

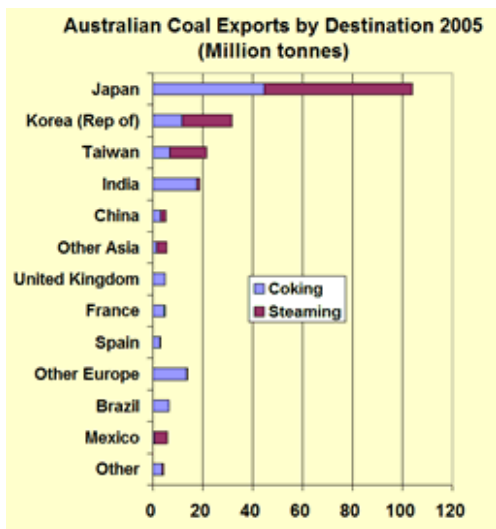
dissemblers and delayers may believe there are no costs. Turnbull is packaging the water initiative as a response to global heating, cost \$10B

Exploring some constraints on Australia taking action.



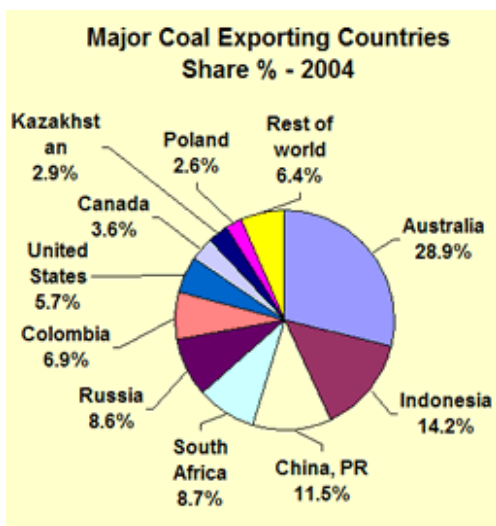
Australian GDP lies in the order of some \$630B, of which commodity export income totals \$99B [$\sim 16\%$], \$42B comes from coal, oil and petroleum and liquefied natural gas. An amount that even were it reordered over time to reflect the carbon emitted when used, ie more gas, would still be mightily affected by a reduction in carbon emissions of between 60 and 80% globally. Such actions may be taken by the importers leaving Australia with a much reduced income.

It's partly why uranium mining has come back onto the agenda. Howard may not have wanted to admit he was wrong to deny climate change but he is taking measures, wrong or right, to position Australia's economy for a world that reduces its carbon footprint.



One can see from above that a leading economy, Japan, takes ~48% of the total. A reduction of 60% in coal use in this advanced economy would see the value of exports fall by some \$15B in today's value from this one customer. Further, changed patterns of energy use and production of goods would have other impacts on the national economy as the prices of commodities produced using alternatives to coal rise, if emissions from its burning are taxed, due to an increase in the prices of imports.

The relative importance of coal exports to the Australian economy is shown below. In carbon terms it equates to some 90Mt of CO₂ when burnt [at the rate of 1t CO₂ to 2.4t of coal] .



For all their fine words what is the reality of a coal fired future

In anticipation of future coal trade volumes, exporting countries are investing in their port, coal mining, and coal transportation infrastructures. Australia has plans to expand the total export capacity of its coal terminals at Abbot Point, Dalrymple Bay, Hay Point, R G Tanna, Barney Point, and Fisherman Islands by about 55 million tons by 2010. In addition, a feasibility study in Australia is underway for a terminal at Wiggins Island in Queensland, with a throughput capacity of 22 million tons. Australia also plans to expand rail transportation capacity in Queensland to 281 million tons

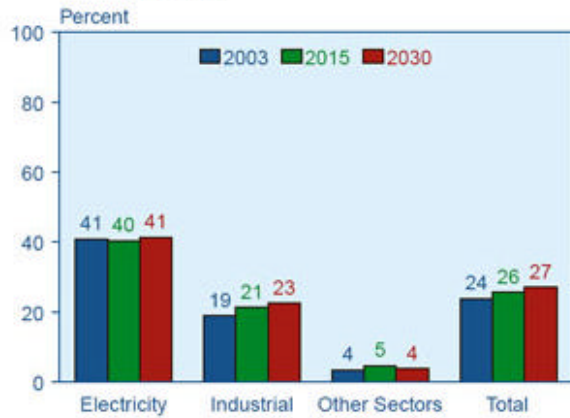
Predicted coal consumption in Australia and New Zealand increases by an average of 1.4 percent per year, from 147 million tons in 2003 to 216 million tons in 2030. With substantial coal reserves, Australia/New Zealand continues to rely heavily on coal for electricity generation. Coal-fired power plants in the two countries supplied 73 percent of their total electricity generation in 2003, and continue to supply more than 70 percent of generation through to 2030.

An almost doubling of use when CO₂ emissions should be falling. The above will see coal contribute an additional 1.43Mt of CO₂ each year with the end result that in 2030 the contribution will be 90Mt up from the current 61.25Mt when expert opinion is that it should have declined to 42Mt. [And end up between 12Mt and 24Mt [80 to 60% fall]]

The only incentive to any economy to change is that inaction will cost more [see the Stern Review]. But for a politician facing the 3 year electoral cycle how do you convince the punters, led by years of practice to believe in the god of consumption, that sacrifice now will be good when they are aged or dead.

And so what is the predicted use of coal

Figure 49. Coal Share of World Energy Consumption by Sector, 2003, 2015, and 2030



Sources: **2003:** Derived from Energy Information Administration (EIA), *International Energy Annual 2003* (May-July 2005), web site www.eia.doe.gov/iea/. **2015 and 2030:** EIA, *System for the Analysis of Global Energy Markets* (2006).

World oil demand will also rise 38% to 118 million barrels a day by 2030, up from about 85 million barrels a day now. It needs to fall by at least 30% by 2030 [to 67 million barrels per day] if we keep the current energy mix. [And end up at 34Mbd]

From the same source; over that same period, natural gas will make up 26 percent of consumption, up from 24 percent; renewable fuels like biodiesel and ethanol will rise to 9 percent of total world energy demand, up from 8 percent.

Well folks, there you have it as seen by the mighty US of A some 3 years ago, global use almost static with more than half of the growth coming from the United States, China and India, according to the EIA's forecast, which assumes no major changes to existing energy policies and regulations.

This is a business as usual path for carbon emissions and one that has to be changed radically if we are to avoid dangerous climate change. For coal alone consumption has to fall markedly, or the carbon be geosequestered, to make an impact on global heating.

That must also occur along with at least a 60% fall in the use of oil and petroleum in combustion processes.

Natural gas, with its low CO₂ content [~2%], does not have same impacts but cannot be grown to replace coal and oil.

Figure 52. Coal Consumption in China by Sector, 2003, 2015, and 2030



Sources: 2003: Derived from Energy Information Administration (EIA), *International Energy Annual 2003* (May-July 2005), web site www.eia.doe.gov/iea/. 2015 and 2030: EIA, *System for the Analysis of Global Energy Markets* (2006).

ABARE [0106] predicts that the use of both coal and oil by the AP6 countries will double by 2050. Perhaps this would not be tragic for humanity if a monumental effort at geosequestration of coal [a] occurred and [b] worked. It could put dangerous climate change off for a few decades.

If combined with a hydrogen economy that may become put off for good, provided those changes come fully online in the next 3 decades, arresting greenhouse gas growth and causing the level of atmospheric CO₂ to fall back to industrial revolution levels over the next century or so. That is if, in the meantime, we do not cross a turning point into runaway climate change, where positive feedbacks have very negative consequences, and there is not a damn thing we can do about it.

The evidence for positive feedbacks is appearing with the growth rate for atmospheric CO₂ trending up by 50% on the rate of the last 3 decades of the 20th century, the natural sinks taking less as the planet heats up.

So regardless of what we are told about the government's, or indeed the opposition's concern about climate change, what is the coal business up to.

In anticipation of future coal trade volumes, exporting countries are investing in their port, coal mining, and coal transportation infrastructures.

Australia, the world's major exporter, has plans to expand the total export capacity of its coal terminals at Abbot Point, Dalrymple Bay, Hay Point, R G Tanna, Barney Point, and Fisherman Islands by about 55 million tons by 2010.

In addition, a feasibility study is underway for a terminal at Wiggins Island in Queensland, with a throughput capacity of 22 million tons. Australia also plans to expand rail transportation capacity in Queensland to 281 million tons to keep that coal moving.

From these predictions it appears that Australia is wedded to the destruction of its own climate norms, generating extremes in temperature and rainfall, floods, droughts with associated stress on irrigation supplies, more fire danger weather with probably more fires, and storms.

Brilliant. \$10B can only be a down payment on reactions to such a show.

Is it avoidable?

According to the Stern Review the technology is available for Australia to meet a goal of reducing its dependence on fossil fuels such as coal by 60% and at a cost of 1% of GDP per year. In money its A\$6.3Bpa.

Starting today, the national economy should step up the rate that it is transforming itself away from carbon economy, creating export opportunities for alternative technologies. The longer this is delayed the greater the cost, not only monetarily but in the impacts of changes to the climate we will force as we need to make the alternative energy sources and to do this releases CO₂ to the atmosphere.

Already we see another innovative company move offshore, this time solar technology goes to California where there is a mandated market. Not to say that an Australian company would not be attracted to the 7th largest economy in the world. However instead of head office here it will be spending away there.

Many other places are taking similar paths, Germany's Passivhaus program; to make houses energy use neutral once built will rebound into the German economy with a range of building products and technologies. The drawing of heat from 150m below the surface to feed heat pumps in colder climes may have its equivalent air conditioning. Such measures address domestic energy consumption.

Of greater difficulty is industrial energy, no country wanting to sacrifice its economy to save its economy without others making the same efforts, the levelish playing field. This is where the big changes need to come from. And not just in efficiency gains or alternative fuels.

The attitude toward material consumption will have to change, fashion changes and built in obsolescence taking back seats to products that have long lives, are repairable and when worn out can be fully recycled.

Conspicuous and unnecessary consumption will have to be diverted into other activities, people's status recognized by other means.

How can such attitudes be turned around and comprehensive, effective and timely changes take place to bring about meaningful reductions in the growth of greenhouse gases to a point below where dangerous climate change occurs .

Currently we are at 432ppm CO2 equivalent; the range we are limited to lies between 450 and 550ppm according to the experts. Following the business as usual path the lower end of the dangerous range is reached in a decade and the upper level by 2050.

There is a lag time for the warming to occur and so temperature rises to dangerous level will inevitably follow by 30 to 40 years. Once emitted the greenhouse gas that makes up the largest part of the total, carbon dioxide, [current 383ppm] remains active for a century.

A regulated and gradual change to an economy can be managed with limited social dislocation, even a planned rapid disruption can be managed for a time provided the population sees the need to sacrifice. However, the latter may be too late for a 'victory'

Will Howard or Rudd take on both King Coal and the CFMEU

Queen petroleum, without new major discoveries, is set to retire from the Australian scene, the productive fields becoming barren, worked to an early grave.

Not that the Queen will retire, imported production will, as global demand pushes price, grow from the \$4B cost now an estimated \$25B in several decades. A replacement fuel[s] for this import is in our national interest and any government that does not act here to develop replacements at a large scale must be judged to have other interests at heart.

That leaves the coal industry, domestic and export, to be transformed if we are to play our part in avoiding dangerous climate change.

Howard has a record for supporting the status quo, defending the destruction of the climates norms and global heating as being in the national interest until very recently,

when the advice government was receiving and the mood of the electorate clearly showed him to be out of touch with reality on this matter.

[On Iraq and asylum seekers he has stayed the course and recently on Hicks he has also changed]

Government of any persuasion cannot continue to ignore the advice of its instrumentalities without jeopardizing all its credibility. The scientific community could not be muzzled, with even the Aussie of the Year refusing to be silent.

Further, Rudd and the Greens have flagged the issue of climate change as one battleground when seeking to win the minds and perhaps the hearts of the electorate.

An electorate unable to perceive the threat and/or with a supposedly believable answer that does not threaten the status quo proffered to it will choose the course of least change.

That conservatism is an inherent one, usually overcome by the government of the day losing its credibility as managers and keepers of the nation's values causing a change to an alternative.

Another 3 years will pass with little change to the status of King coal, whilst the dangers of climate change will swell up and down like the sea as we inexorably march into a hotter world. For some insight into that world read <http://news.independent.co.uk/environment/article2211566.ece>

I will be surprised if the 2 old conservative parties depart from the script in that time, regardless of the balance of power in the Senate. A surprising disaster may necessitate some adjustment of the controls in a reactive form to events, for example Howard and Turnbull introducing a Murray Darling water plan.

We have seen this scripted approach with an attempt to blame the innate, the national park, and its supporters, the conservationists, with the fire events that have affected Tasmania and Victoria, both Howard and the odious Abetz taking variations of that line here.

We see the technological fix sometime in the future currently on offer. Geosequestration starting some time after 2015 and 25 nuclear power stations once a place to put them can be worked out.

One unproven and the other unnecessary for Australia, they are both dangerous in their dissembling and delaying of simple practical action such as solar water heating, at least 10% of electrical energy goes into this practice.

Rudd may even come up with a bold plan to increase alternative sources through an expansion of the mandatory renewable Energy Target or a national carbon emissions trading scheme. Garrett certainly flags these as part of Labor policy.

These are Blair's solutions, that in England are going hand in hand with the contradictory growing of emissions from other lifestyle choices, such as increasing air travel, that more than offset the savings in carbon through recycling or increasing home energy efficiency.

[<http://www.guardian.co.uk/Columnists/Column/0,,1975112,00.html>. Have a read of Monbiot on this and see how the ideas offered by an independent columnist so threaten the status quo and how you will be bamboozled by the offers coming at the next election and for some time thereafter.]

It appears unlikely that a meaningful package addressing climate change will be offered by either of the old parties. It will not be comprehensive, effective or timely.

I would like to be surprised, but my best guess is for those concerned about climate change there will only be one choice and its not Family First or the DLP.

Another test for the influence of Peter Garret on this matter will be the preferencing of other parties. In his 'new politics' will there be a move away from bums on seats to a mature play of cooperation in what has been made into the most important issue ever by those whose horizons have been limited to date.

The next election is where we see the forest policy battle between the 2 old parties go national, fighting over forests buried for ages. With coal involved in each of the eastern seaboard states economies, which party will win over the workers of those industries and those dependent on them and win from the coal industry donations to the policies that will see changes to their industry?.

The Libe rals under Howard/Turnbull will offer future technologies, with more coal mined and burnt, perhaps with the carbon buried if geosequestration can be made to work and nuclear power. <http://www.abc.net.au/7.30/content/2007/s1833949.htm>

[I have to ask here how a multimillionaire, even though his business interests are in a blind trust, can act without bias toward certain interests. Turnbull's experience in

merchant banking would give him insights. However, I don't have a solution except a Ministry without impact on the economy. Further, I ask why the pecuniary interest register of the parliaments is not a matter of public record available on the websites of the Parliaments.]

It appears that Rudd/Garrett [Labor] will offer a transition policy, with the industry changed over time to allow relocation of affected workers. Carbon emissions trading will be the driver of change.

The third major party will offer a package of policies to address the problem through a series of mandated targets and growth of the renewables sector. Recognizing the seriousness of the impacts of limited and delayed action, strong and immediate measures will be proposed for vilification by vested interests, myopic unions and other exclusive mobs.

For example the Energy Supply Association states that \$75B will have to be spent by 2030 to address the problems of coal fired power by reducing emissions by 30% . This is in line with the expenditure level proposed by Stern. That the price of electricity will double in 23 years should surprise no one.

Phill Parsons notes that according to CSIRO predictions of climate change for Tasmania we are likely to see fire danger increase as the climate changes to one of more and longer dry periods with greater evaporation. He notes they also see opportunities with hydro power and, to cope with the times, are able to produce more wine.

Changes in attitude and action will come, they are unavoidable. The delays by the Tasmanian [with its so called Climate Change Strategy which, if it had any understanding of the problem and a commitment to action would be styled Avoiding Dangerous Climate Change Strategy] and Australian governments in taking meaningful action are scandalous, but who will remember when the impacts of global heating flame up, take the beach or cause declines in rural production.

What can one say to the workers in the timber industry after Auspine. Their support of Lennon and Howard would seem a case of told you so. The industry has been shrinking employment for years and will, even with the pulpmill, continue to do so. The Greens transition strategy projected employment growth in processing and Latham offered 800M to fund it. That failure to recognize the future must stand as evidence of the difficulty for a community or society to recognize the dangers it faces and act when that action will involve major changes.

The next scribble is why we will always have the forests to fall back on, a not so funny not joke at your expense brought to you by the business as usual path of global boiling.