

# The RA NBOW 2000<sup>©</sup> PROJECT .

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*Climate Change – Focus –* Global warming and sea levels by Ross Heatley, Southport, Queensland, Australia

As a Town Planner often lodging development applications for low lying or waterfront sites, I frequently encounter well intentioned indoctrinees banging on about global warming, resulting in melting the polar icecaps, thus ocean levels rising by upwards of a metre.

As an economist, I look at supply : where is all the water going to come from to effect this massive change? To answer that, I turn to my handy atlas and as oceans contain 97.2% of the world's total water – to a book about oceans that Santa gave me.

Ice is frozen water. Anyone who has ever been bored enough to watch the ice in their glass melt will notice that, once the ice is melted, the glass does not overflow. The ice had simply displaced its weight of liquid water. It had floated because when changing state, from liquid to solid, it expanded by about 9% - thus a unit volume of ice is lighter than the same unit volume of water.

Knowing this – and applying the 'ceteris paribus' assumption (leaving all other things equal) – let's now hypothetically melt things.

First the entire northern hemisphere polar ice cap and in the southern hemisphere all the floating ice around the land mass of Antarctica. Abracadabra, it's melted. I don't know how. It just is. The effect of this on ocean volumes – and therefore sea levels? Zip! But not just zip. Zip minus 9% - because the volume of frozen water is larger than the liquid stuff.

Now to the ice on the Antarctic landmass. Let's melt say 10 metres off all of it's surface area of

13.2 million km<sup>2</sup>. When added to the 362.14 million km<sup>2</sup> of the surface of the world's oceans and larger seas, the effect of this hypothetical melt would be to increase overall ocean levels by 0.36 metres.

While I haven't bothered to quantify the 'zip minus 9%' effect on lowering sea levels from all of the world's now-molten ocean ice, I would say it would pretty largely offset the serious amount of ice we just took off Antarctica. Hypothetically at least.

Leaving the hypothetical world just there however, there is one matter that the canny will have spotted. Given that on a nice day in Antarctica, it's about -50°C degrees, to melt that ice is going to require a substantial change in surface temperatures.

As the mercury hovers near 40°c degrees here in summer, an extra 50 and I won't be around to worry about the welfare of penguins, I can assure you.

So how is this pending disaster of massive rises in ocean levels going to occur? It's simple. It's not.

Too many people have been hoodwinked by bogus 'science'. Sure, global warming is with us for how long and what extent who knows?

Call me Pangloss but I've got a feeling global warming will be countered by other forces beyond our puny human efforts in this, the best of all possible worlds.

Written & Authorised by Neil Smithson of 364 Middleton Road, Albany, Western Australia 6330

# **Quotable Quotes in the Global Warming Debate**

No excusing EPA for coal nod : "Excuses, excuses. It seems that even the mightiest have convenient excuses when they fail to perform as they should. Excuses come in a variety of forms. Of course, some may be valid. But, at worst, they amount to nothing more than weasel words. 'I was only following orders' is a classic excuse of bureaucrats. That's the so-called Nuremberg defence put forward by some nazi officials at the war crimes trials after World War II. The Allied military court dismissed it, rightly or wrongly, on the basis that there is an absolute law contained within common morality that must override bureaucratic orders. Then there's 'I didn't know'. Sticking with the previous theme, this was the excuse of many wartime Germans who said they were unaware of the extermination of Jews. And then there's 'I knew, but I couldn't do anything. My hands were tied'. The coward's excuse. I wonder what excuse the five members of the Environmental Protection Authority use to justify to friends and family their decisions last week to green light three coal-fired power station proposals for the South-West."

"Such decisions can always be explained away with words that appear plausible and pass limited scrutiny. Sometimes they don't appear weasel-like at all. But nothing can remove the EPA's members from an ultimate finding that they have failed us. And they've failed on the most pressing problem facing the environment – the greenhouse gas crisis which underpins a threatening increase in global warming. Ironically, one of the few arguments in favour of coal for power generation these days is that it provides so much particulate pollution that it is shading the planet from the full greenhouse effect – the phenomenon of 'global dimming'. It's a shame the EPA didn't offer us that delightful perversity. It's better than the mush we got from it. You can't get much insight into the thinking of the EPA from the three bulletins issued outlining its advice to Environment Minister Judy Edwards on the proposals."

"The bulletins tell us gas is better than coal for the environment and that the coal plants would be very polluting indeed. And then they endorse coal. That's instead of telling the Minister that no self-respecting environmental watchdog could possibly countenance another dirty coal *(fired power)* plant in the face of the greenhouse crisis. And that it intended to live up to its legislated responsibilities by drawing one of *Premier* Geoff Gallop's famous 'lines in the sand'. No-one in their right mind would suggest that we dismiss the valuable energy resource we have in Collie coal. But the time must come when Western Power seriously winds back its 70% reliance on coal to fuel our growing electricity demand. The EPA doesn't concede that time has arrived, even though hairy-chested rednecks like California's Governator Arnie Schwarzenegger have recently seen the greenhouse light and are doing something about it. So how did our so-called environmental watchdog get itself into this pickle?"

"Its chairman told this newspaper last week that 'in the absence of a national standard for emissions, the EPA had chosen to simply highlight the differences in emissions between coal-fired proposals and gas-fired stations'. What a complete abrogation of responsibilities. EPA chairman Wally Cox said yesterday that the watchdog had also decided against forcing the coal proponents to take significant measures, such as planting trees, to offset their greenhouse emissions in return for EPA approval, *The West Australian* reported. He said this was because Australia had no national framework to control greenhouse emissions from power stations, partly because the (*Howard*) Federal Government had refused to sign the Kyoto protocol. There is nothing in the EPA Act that says its recommendations have to fit in with national government policy – or an absence of such a policy. The Act allows the EPA to confer and collaborate with federal authorities and to have regard for any bilateral agreements. It doesn't say it has to have regard to any lack of federal policies. Which is what makes the EPA's rationale nonsense."

"However, there is much in the Act to say that the EPA has a responsibility to instruct the State Government about its greenhouse policies. The Authority, if it considers it appropriate or is requested to do so by the Minister, may consider and make proposals as to the policy to be followed in the State with regard to environmental matters, says Section 17. And you only have to go to the objectives of the EPA set out in the Act to understand how far it has strayed from its set task. They are : 'to protect the environment' and 'to prevent, control and abate pollution and environmental harm'. Instead, what the EPA did last week was to endorse proposals it knew would harm the environment through massive pollution. In doing so, it calls into question its independence of executive government. Section 8 of the EPA Act states that neither the authority nor its chairman 'shall be subject to the direction of the Minister. The problem is that some people don't need to be directed. Members of the former Tonkin Labor government must be dismayed when they see what has happened to their brave idea from 1972 when WA led the nation in environmental protection law."

"Let's put the potential environmental harm endorsed last week into some perspective. Wambo's proposal for a 320MW combined cycle gas turbine plant at Kwinana would emit 846,000 tonnes of carbon dioxide a year. The dirtiest of the competing coal-fired plants – Griffin's 330MW Collie B – would produce 1,000,000 tonnes more greenhouse pollution. A million tonnes more. That's way over double the gas plant's carbon dioxide emissions. We could get twice as much power from gas for the same environmental damage. The EPA did muster up enough courage to make this observation in its bulletin : Air quality is an emerging issue in Collie, Dr Cox said. Sulphur dioxide levels may begin to approach ambient standards designed to protect human health and the environment as industry, including proposed power stations, around Collie develops. So they might get jobs in Collie, but they'll pay a price. Appeals against the EPA's reports close on Monday, They are considered by an appeals convenor who prepares a report for the Minister. Dr Edwards then takes into consideration both the EPA's and the convenor's reports when making her final decision. Fancy a wager on coal?"

# The Hon. Dr Judy Edwards MLA, Minister for the Environment Extract : West Australian (Page 19), 25 Jun 2005

**Following up** – The Hon. Dr Judy Edwards MLA held the environment portfolio in state cabinet from February 2001 to February 2006, and retired from parliament as the Member for Maylands (Labor) after eighteen years at the 2008 State Election. Dr Cox resigned in May 2007.

*Gorgon gas capture under fire* : "Prominent Australian scientist Karl Kruszelnicki has criticised plans to bury millions of tonnes of carbon dioxide generated by the Gorgon gas project off WA's North-West coast, saying the mass of liquid  $CO_2$  created would be harder to manage than radioactive waste. The physicist, radio personality and Climate Change Coalition Senate candidate has blasted 'clean coal' technology, which includes burying gas emissions deep below the Earth's surface in a process known as geo-sequestration, as a complete furphy. Long-term, the way they're trying to put up geo-sequestration as the cure for everything, I don't buy that because the volumes you're trying to get rid of are huge."

# Dr Karl Kruszelnicki, Climate Change Senate Candidate Extract : West Australian (Page 16), 07 Nov 2007

*Climate plan back to the Middle Ages :* "Moves by the Rudd Government to significantly cut greenhouse gas emissions will needlessly push living standards back to the Middle Ages, former WA Labor senator Peter Walsh has warned. Mr Walsh, who heads the hardline global warming sceptic organisation Lavoisier Group, yesterday labelled the Kyoto hypothesis linking global warming with greenhouse caused by human activity as a 'hoax'. Mr Walsh, who was finance minister in the Hawke government, said proposed targets to reduce greenhouse gas emissions by 60% by 2050 were unrealistic without substituting nuclear power for coal, or alternatively set the world back on a path to living standards of the Middle Ages."

# Former Senator Peter Walsh, ALP Western Australia Extract : West Australian (Page 11), 29 Jan 2008

**Opposition urges State nuclear rethink over climate change :** "Nuclear power should be considered if tough targets for cutting greenhouse gas emissions were to be met. WA's Shadow energy minister John Day, said the Carpenter Government needed to accept nuclear energy as a part of the long-term solution and reconsider its outright opposition (*to uranium mining and nuclear power generation*). The call came after the Rudd Government's chief climate change adviser Ross Garnaut said last week that Australia might need to slash emissions as much as 90% by 2050 to avert the effects of climate change. Nuclear energy use in WA itself can't be ruled out in the long-term. We don't think there's a case for it in the foreseeable future ... but you certainly can't close the door on it forever."

"But Mr Day warned that a reduction of the proportions outlined by Professor Garnaut would require widespread support which included other countries that significantly contributed to greenhouse gas emissions. It (*Australian reduction targets*) would be largely pointless unless there was going to be substantial change or reduction also in other much larger economies, including China and India. It was in WA's interests to start mining uranium now ahead of expected advancements in carbon sequestration and renewable energy sources such as wind and solar power."

"Federal Opposition climate change spokesperson Greg Hunt said the coalition would only embrace nuclear power if it attracted bipartisan support, widespread community backing and the economics made sense. Gary Wood, state secretary of the mining & energy division of the Construction, Forestry, Mining and Energy Union, said any greenhouse targets should be positive for the longer term sustainability of the coal industry. The CFMEU does not support uranium mining in WA."

#### Hon. John Day MLA, Shadow Energy Minister WA Extract : West Australian (Page 13), 25 Feb 2008

*Humans can't stop a natural event :* "In assessing the Garnaut report we should keep in mind that the author is an economist and not a scientist (Huge cut in carbon needed : Garnaut, 22/2). Ross Garnaut has unquestionably accepted the views of scientists employed in the global warming industry whose careers depend on finding a human solution to an event which was not created by humans in the first place. Global warming has (with some significant fluctuations) been occurring for the past 18,000 years as the planet has emerged from the last Ice Age. The professor has seen fit to ignore a substantial body of scientific opinion, particularly among those scientists with a knowledge and understanding of Earth's geological and climatic history, who believe that climate change is overwhelmingly due to natural causes and that the human contribution is minimal."

"These views are not widely reported in the popular pres, presumably because they seem to be regarded as politically incorrect. The natural causes of climate change alluded to are varied and complex but are largely due, on a longer time scale, to fluctuations in the Earth's orbit around the Sun, which change the distance of the Earth from the Sun and the tilt of its axis (known as Milankovitch cycles). On a shorter time scale, variations in the heat energy emitted by the Sun give rise to climate change on Earth. Recent data from NASA's Mars Global Surveyor and Odyssey missions has shown a diminution of the carbon dioxide 'ice caps' near the Martian south pole."

"The head of space research at St. Petersburg Astronomical Observatory in Russia, Habibullo Abdussamatov, cites this as evidence of simultaneous global warming on both Earth and Mars caused by increase in solar irradiance. However, he further observes that this irradiance is now on the wane and expects it to reach a minimum around 2040. As a result, he expects a steep cooling of Earth's climate in 15 to 20 years. With the northern hemisphere currently experiencing its severest winter in many years, perhaps we are witnessing the beginning of this trend. Professor Garnaut, in his suggested plan for action, made no reference to nuclear power, wholeheartedly adopted by nations such as France and Japan and currently the only available large-scale alternative to fossil fuels. The report seems like a case of garbage in, garbage out."

# John Geary, Busselton Resident & Taxpayer Extract : West Australian (Page 22), 27 Feb 2008

*No one gets it :* "Despite warnings from Professor Garnaut, Canberra's chief adviser on climate change, our political leaders are still failing to 'get with the program'. Professor Garnaut's recent report concludes that the problem of climate change is bigger than we thought and that immediate action is required now. Australia is already a hot and dry country that is heavily reliant on agriculture and with dwindling water supplies we will suffer the effects of climate change more than other developed countries. It appears that WA Energy Minister Fran Logan 'doesn't get it' either, given his recent statement that coal has a future through geo-sequestration."

"The truth is that geo-sequestration is unproved, has yet to be costed, and so far no one is willing to put up their hands to accept long-term liability for any leakages. Disturbingly, our State Government has approved yet another coal-fired power station and is currently looking at another. It is reckless to be pinning our hopes on an unproved technology which in turn serves only to delay the real action that is required to transform our energy future into one that is sustainable and one that won't compromise the future for our kids and grandkids."

#### Dawn Jecks, Safety Bay Resident & Taxpayer Extract : West Australian (Page 22), 27 Feb 2008

*Nelson turns back on nuclear power option :* "Opposition Leader Brendan Nelson (Bradfield, NSW) has gone cold on atomic energy just two years after almost single-handedly sparking the nuclear debate in Australia. Dr Nelson, previously a loud advocate of Australia actively pursuing the nuclear option as a solution to global warming, was yesterday far more cautious. We've made it very clear that as far as Australia's future is concerned there is no plan at all for a nuclear power industry. There will be no nuclear power industry in Australia unless Mr Rudd and his Government have some sort of secret plan for it. We cannot envisage any circumstance under which Australia will have a nuclear power industry. Deputy Liberal leader Julie Bishop (Curtin, WA) told *The West Australian* yesterday that nuclear energy was not viable."

# Hon. Dr Brendan Nelson MHR, Opposition Leader Article : West Australian (Page 6), 29 Feb 2008

**2050** *emissions target to cost A\$47 trillion a year :* "Governments and industry need to invest at least US\$45 trillion (A\$47 trillion), or 1.1% of world GDP annually, to halve greenhouse gas emissions by 2050, the International Energy Agency has warned. That calls for a massive increase in nuclear energy output – about 32 new nuclear plants a year for the next 40 years, compared with the 393 currently in commission – and other forms of non-carbon-emitting power generation. An average 60 new coal and gas-fired electricity plants around the world would need to be fitted each year with carbon dioxide capture and storage technology, at a cost of US\$90 billion annually. Massive investment would be needed to develop  $CO_2$  reduction technology, up to US\$100 million annually for the next 15 years, the IEA asserts in its Energy Technology Perspectives 2008 report."

"But the alternative, under a continuation of current energy use, is a 130% increase in emissions over that time and a 70% net increase in global demand for oil. One benefit of achieving the 50% emissions reduction target would be a significant lessening of oil-dependence – total world oil demand in 2050 would be 27% below 2005 levels, according to the study. Under current policies and practices, IEA executive director Nobuo Tanaka warned: We are very far from sustainable development, despite the widespread recognition of the long-term problem. In fact,  $CO_2$  emissions growth has accelerated considerably in recent years. We will require immediate policy action and a technological transition on an unprecedented scale, Mr Tanaka said yesterday ion Tokyo."

"At a summit in Hokkaido next month, G8 leaders are expected to adopt Japan's proposal to halve the current level of world  $CO_2$  emissions by 2050. The target was recently endorsed by G8 environmental ministers. The IEA membership includes all the G8 states except Russia – the United States, Japan, Britain, Germany, France, Russia, Canada and Italy – plus most other significant developed economies, including Australia. Prime Minister Kevin Rudd will attend the Hokkaido summit at Japan's invitation as one of the G8 'outreach partners' to discuss emissions control and energy and food security. Japanese Prime Minister Yasuo Fukuda hopes to produce the framework for a global warming agreement to replace the Kyoto Protocol on emissions control, expiring in 2012. But IEA membership does not include the big developing economies such as China – which has just surpassed the US as the world's biggest greenhouse emitter – India and Brazil."

#### Nobuo Tanaka, Executive Director, International Energy Agency Article : Weekend Australian (Page 17), 07 Jun 2008

Sea level rise decision could have implications for all coastal councils : "A decision by Victoria's Civil and Administrative Tribunal to overturn South Gippsland Shire Council's approval of the development of six coastal homes due to the potential impact of rising sea levels could have ramifications for coastal councils across Australia. The tribunal's decision sends a strong message to Victorian coastal councils that the predicted impacts of climate change should be taken into account when considering development applications in coastal zones. Environment Defenders Office Victorian Principal Solicitor, Brendan Sydes, says the tribunal's decision that the likelihood of sea level rises should be considered by councils when making planning decisions could have significance within Victoria and nationally. Mr Sydes says VCAT's decision may be an indication of the approach planning tribunals nationally could take when considering planning decisions made in coastal areas."

"The case before VCAT involved the assessment of six planning permits granted by the regional South Gippsland Shire Council for dwellings located in a farming zone close to the coast. In making its decision to overturn the council's planning approval of the dwellings, VCAT considered the potential impact of sea level rises caused by climate change on the proposed developments. To this end, the tribunal found increases in the severity of storm events and rising sea levels would create a *'reasonably foreseeable risk'* of inundation of the land and proposed dwellings, which VCAT deemed to be *'unacceptable'*. While the tribunal noted the relevance of climate change considerations to planning decision-making processes is presently in an *'evolutionary phase'*, it concluded that sea level rise and the risk of coastal inundation are *'relevant matters to consider in appropriate circumstances'*. The tribunal said climate change would lead to extreme weather conditions beyond the historical record that planners rely on when assessing the potential future impact on proposed developments."

# To view VCAT's decision : http://www.austlii.edu.au/cgi-bin/sinodisp/au/cases/vic/VCAT/2008/1545.html

# Brendan Sydes, Principal Solicitor, Victorian Environmental Defender's Office e-News : EnviroInfo (Page 2), 14 Aug 2008

**Following up** – The significance of this decision is the requirement for local government (and any decision-making authority) dealing in legislation to make a determination, firstly as to those matters that should be considered on the basis of 'reasonable foreseeable future risk', and then secondly, what constitutes 'unacceptable risk'. Ultimately, in making those determinations, does the decision-making authority then have to

accept some measure of liability as to outcome where they either set the standard or disregard the notional risk? Contrast the agreed global warming impact of GGE arising from the use of Coal, Gas & Oil as energy sources, and compare that to the agreed risk of promoting Nuclear power given that renewable energy sources are not available on the scale required to address the task at hand – a not so slow cooker or the quicker frying pan!

*China's power carbon emissions set to outstrip US for first time :* "The carbon emissions of China's electric power sector will jump by about 1/3<sup>rd</sup> this year, surpassing the total emissions of the US power industry for the first time, according to a report by the Centre for Global Development, a Washington-based think tank. The estimate shows that though China and India are becoming more efficient in energy use, their rapid pace of economic growth will mean a doubling of their carbon emissions from power plants over the next twelve years. We se some marginal signs of improvement in carbon intensity, particularly in some of the major developing countries, Kevin Ummel, a researcher at the centre said. But even with that slight silver lining, aggregate emissions, the only measure that matters to the atmosphere, continue to race upward."

"Worldwide, power generation accounts for 37% of energy-related carbon dioxide emissions and 27% of all carbon emissions, including those attributed to deforestation. The report highlights the challenge of curbing greenhouse gases in time to slow climate change while maintaining world economic growth. China and India have made growth their top priority to raise living standards and many international climate negotiators do not expect meaningful limits on carbon emissions from them until after 2020 – that spells trouble for the climate, many scientists warn. We urgently need to cut power-related carbon dioxide emissions, David Wheeler, a senior fellow at the centre, said. According to the report, Chinese power plants will produce about 3.1 billion tonnes of carbon dioxide this year, up from about 2.3 billion tonnes last year. Paul Ting, a veteran oil analyst now specialising in China, said China relied on coal for three-quarters of its energy consumption."

# Kevin Ummel, Centre for Global Development, Washington DC, USA Extract : West Australian (Page 19), 28 Aug 2008

*Garnaut to unveil carbon cuts :* "Government climate change adviser Ross Garnaut will today argue the case for measuring greenhouse emissions on a per capita basis as he recommends how deeply Australia should cut its atmospheric pollution by 2020. Professor Garnaut will release the first modelling of the economic impact of climate change and advise the federal government on how much Australia should cut its emissions, during a speech at the national Press Club in Canberra. We have tried to come up with something that would set out principles for a fair agreement, internationally and nationally. We began by working out what principles would be fair in an international agreement that stands a chance of being accepted globally. We then worked out what they would mean for Australia, what would be our fair contribution to their implementation and how much it would cost us. Measuring emissions on a per capita basis could prove advantageous in negotiating international agreements as Australia is expected to have far higher population growth in coming decade than other developed countries."

#### Professor Ross Garnaut, Australian Climate Change Adviser Extract : West Australian (Page 12), 05 Sep 2008

*Garnaut to unveil carbon cuts :* "But the Australian Greens condemned any attempt to limit reductions in carbon emissions by using a per capita formula. We have to recognise that Australia has the highest per capita greenhouse gas emissions in the world, Senator Christine Milne said. And the rest of the world is not going to look very kindly if we start arguing that not only should we start from our high-level base but we should take population growth into account and so flat-line our efforts."

#### Senator the Hon. Christine Milne, Greens Tasmania Extract : West Australian (Page 12), 05 Sep 2008

**N-power 'best WA option'**: "Uranium mining and building nuclear reactors could be Western Australia's biggest contribution to fight against global warming at home and abroad, guests at the Engineers Driving Australia's Future conference in Perth will be told today. Dr Ziggy Switkowski, chairman of the Australian Nuclear Science and Technology Organisation, says nuclear energy is still Australia's best and cheapest option for cutting (*greenhouse gas*) emissions and meeting energy needs. The biggest contribution to the global warming challenge that we could make is to encourage more use of clean energy sources, of which nuclear energy is at the top, he said."

# Dr Ziggy Switkowski, Chairman, ANSTO Article : West Australian (Page 7), 11 Sep 2008

*Rudd unveils* \$100m Carbon capture program : "The federal government will commit \$100 million a year to a Global Institute, based in Australia, aimed at accelerating the development of carbon capture and storage (CCS) technology. The government says the institute will pave the way for the commercial deployment of CCS across the world by the end of the next decade. The institute will help facilitate demonstration projects and identify and support necessary research, including regulatory settings and regulatory frameworks. The commitment is in addition to the government's \$500 million national clean coal fund, announced in February last year. The Minerals Council of Australia welcomed the initiative, which reinforced the view that there could be no global solution to the challenge of climate change without clean coal technologies. The council said it was encouraged by the prospect that significant revenues generated from the proposed Emissions Trading Scheme would be channelled into the institute."

"Australia is the world's largest coal exporter so it is clearly in our interest to contribute to the commercialisation of clean coal technologies, and the earliest possible adoption of that technology in the fastest growing regions of the world, Minerals Council of Australia Chief Executive Officer Mitchell H Hooke said in a statement. The International Energy Agency expects global coal demand is expected to increase by 73 per cent by 2030, with China and India by that time to account for 60 per cent of total world coal demand, up from 45 per cent in 2005. Australia already has an active research effort underway for the deployment of CCS technology, led by the Commonwealth Scientific and Industrial Research Organisation and the Cooperative Research Centre for Greenhouse Gas Technologies."

"A number of small-scale CCS demonstration projects have commenced at Australian power stations, the largest being the  $CO_2CRC$  Otway Basin project in Victoria. That project is one of the largest and most comprehensive geological storage projects in the world, and has already successfully sequestered 10,000 tonnes of  $CO_2$  two kilometres underground. In WA, Chevron is investigating the feasibility of incorporating carbon capture and storage at its proposed Gorgon LNG project. Aspiring energy generator Aviva Corporation is also looking at the possibility of using CCS technology at its proposed \$1 billion 400 megawatt coal fired power station near Eneabba. Aviva has partnered with oil and gas producer ARC Energy Ltd to undertake a study on potentially burying  $CO_2$  emissions underground in depleted oil and gas reservoirs in the North Perth Basin."

# Mitchell Hooke, CEO, Minerals Council of Australia e-News : WA Business News, 19 Sep 2008

25% cut in GGE 'delusional': "Australia must help craft a new international climate change deal that imposes realistic, binding commitments because the world could not afford another Kyoto Agreement, Professor Ross Garnaut said yesterday. The federal Government's chief adviser on climate change delivers the final volume of his report to Kevin Rudd this morning, with the warning that 'I am putting a pin in the delusion' that an ambitious agreement is possible. The most important thing is to get a comprehensive agreement and get it started. While am agreement to stabilise the level of carbon in the atmosphere around current levels of 450 parts per million (ppm) – the level that climate scientists stipulate is necessary to avoid dangerous warming – would be 'an ideal worth aiming for', it is not realistic at present. This would require a cut of at least 25% in carbon output by 2020, whereas Professor Garnaut advises the Government to cut by only 10%, achieving a projected carbon concentration of 550 ppm (by 2020)."

"The hard message is that it's delusional to say 'Ra! Ra! We've got an agreement to reach 450 ppm', but then not to have a practical program to allocate the burden of exactly who does what, or how to get there, Professor Garnaut said. If that's not tied down, it's delusional. It would set us back, not forward, to have a delusional agreement. Twelve years later, we can't afford another Kyoto. The Kyoto Protocol set carbon reduction targets that, on average, cut emissions of developed nations by 5% of 1990 levels by 2012. Most signatories will exceed their limits and there are no meaningful restraints or sanctions. A conference of world governments in Copenhagen, Denmark, next year is supposed to agree on the next protocol. If a sombre assessment of the risks changes what's possible in an agreement, I will be delighted, Professor Garnaut said, but 550 ppm would be a huge step forward. New material in today's report will include specific suggestions for ways that the main carbon-emitting industries – energy, agriculture and transport – can reduce output. The final report proposed 'a way to effectively decarbonise the economy without compromising economic growth', Professor Garnaut said."

#### Professor Ross Garnaut, Australian Climate Change Adviser Extract : West Australian (Page 3), 30 Sep 2008

*Climate Change – Give us evidence :* "Thank you for publishing the comments of Professor Aynsley Kellow (*University of Tasmania*) (Professor feels heat for climate scepticism, 3/10), yet another scientist who has the courage to decry the junk science of man-made global warming. And to those who say he has not produced any evidence, there is a simple reply. All those who espouse this proposition have not produced any evidence to support their claims, only modelling. In fact, all the data so far appears to be contradicting the modelling. The question should be asked : When scientists are presented with hard data contradicting their theories, why are they denying the data and sticking with the theory? What the world needs is genuine debate on this subject because, so far the man-made global warming cheer squad has not answered any of the challenges posed by other scientists. It is merely made ad hominem attacks on these brave souls. Can *The West Australian* please do some investigative digging into this?"

#### Helen Dyer, Ferndale Resident & Taxpayer Article : West Australian (Page 23), 07 Oct 2008

*Climate Change* – *Give us evidence* : "Your report on the talk by Professor Aynsley Kellow gives the impression that nearly all scientists agree that global warming is happening and is mainly due to the emission of  $CO_2$  by human agencies. I have a dossier of papers signed by hundreds of top scientists and NASA reports supporting the fact that the atmosphere is cooling. They say that the Sun and cosmic rays are the predominant agents for climate change. The Sun is currently dormant (no sunspots) so they predict a cooling phase which could even lead to a mini ice age."

#### L.A. Tilly, Jolimont Resident & Taxpayer Article : West Australian (Page 23), 07 Oct 2008

*Climate Change – Give us evidence :* "In attacking Professor Aynsley Kellow's views on the corruption of environmental science, scientist Peter Dingle is quoted as saying that 99.9% of scientists disagreed with Professor Kellow. I challenge Professor Dingle to publicly produce his evidence of this statistic and publish his evidence in the West Australian. If he cannot do so, I think we can take it that this is just another greenie misrepresentation. Professor Kellow happens to be one of the 2500 IPCC scientists who greenies love to quote in support of their catastrophic global warming scare campaign. Has Professor Dingle any such distinction?"

# Bryant Macfie, Claremont Resident & Taxpayer Article : West Australian (Page 23), 07 Oct 2008

**700,000** homes at sea rise risk : "More than 700,000 Australian homes could be flooded by rising sea levels and up to \$150 billion worth of homes, property and infrastructure were at risk, the Federal Department of Climate Change told a parliamentary inquiry yesterday. Nearly all Australians would be affected – 80% of the Australian population lives in the coastal zone, and approximately 711,000 addresses are within three kilometres of the coast and less than six metres above sea level, the department said in a submission to the inquiry into the effects of climate change on coastal settlements. The Intergovernmental Panel on Climate Change has predicted that sea levels could rise between 0.18m and 0.59m over the next 100 years. The department said that even a small rise would dramatically change Australia's coastline. It is estimated that erodible coasts will recede one metre for every one centimetre rise in sea level, the report said. Storm surges will exacerbate coastal erosion."

"Other scientists say the sea could rise metres in the next century. The director of the Fenner School of Environment and Society at the Australian national University, Professor Will Steffen, told the inquiry there was huge uncertainty among scientists about the rate of sea level rise and 'the science ... has progressed significantly since the publication of the IPCC (report) last year'. The observed rate of sea-level rise is tracking at or near the upper limits of the envelope of IPCC projections. With no further changes in the rate of sea level rise, this would suggest that sea levels in 2100 would be 0.75m to one metre above the 2000 levels. However, there was further uncertainty over the loss of polar ice sheets, particularly Greenland, which was melting rapidly. The concern is that a threshold may soon be passed beyond which we'll be committed to losing most or all of the Greenland ice sheet. This would lead to 6.0m of sea level rise (with enormous implications for Australia), although the time frame required to lose this amount of ice is highly uncertain, ranging from a century to a millennium or more."

"Insurance Australia Group actuary Tony Coleman said preliminary estimates of the value of property, homes, businesses and public infrastructure vulnerable to sea inundation ranged from \$50 billion to \$150 billion. The figure depends upon the extent of sea-level rise assumed and the effectiveness or otherwise of potential mitigation measures."

#### Professor Will Steffen, Australian National University Article : West Australian (Page 18), 17 Oct 2008

**Following up** – The fact remains that the Federal Parliament of the Commonwealth of Australia (Politicians all, some of who are scientists) acting on the advice of commonwealth environmental agencies, in association with several other international authorities and governments, has formerly recognised the production of Greenhouse Gas Emissions (GGEs), and attributed same in some measure to contributing to global warming through largely physical evidence expressed as the melting of ice-sheets in the Arctic and Antarctic hemispheres.

**Following up** – Changes in sea levels are by no means uniformly experienced around the globe at varying latitudes / longitudes, and generally relate to extremes of lunar and meteorological events. Of course, it could prove to be the biggest environmental hoax of all-time, in which case, it will do irreparable damage to the profession and credibility of science – the question is can we afford to accept that risk on behalf of future generations? In comparison, I believe that Peak Oil & Gas will have a far greater impact on the global community in the next two decades, including the restriction of activities associated with the production of GGEs.

*I disagree – Global Warming & Sea Level Change :* "I'd like to take Roger Marjoribanks (Absurd sea-level predictions, 30/10) to task about his climate-change claims. It's bad enough when someone dismisses suggestions of climate-change impacts, but to back this up with claims disguised as facts is outrageous. The International Panel on Climate Change (IPCC) did produce a comprehensive report last year, but it doesn't read anything like Mr Marjoribanks would have us believe. He indicates that the report predicts that sea levels would rise by, at most 59cm over the next 100 years. This is not correct. The IPCC report says that if the current rate of sea level rise was to continue, sea levels would rise 59cm. But it also indicates that loss of aerosols in the atmosphere (due to increased pollution control in recent years) could contribute a further 80cm rise. Furthermore, an increased melting of ice caps could raise the number by as much as 200cm, and that loss of the Greenland ice sheet would cause a whopping seven metre increase. It's also important to note that the IPCC also qualifies its estimates with the statement 'because understanding of some important effects driving sea level rise is too limited, this report does not assess the likelihood, nor provide an upper bound for sea level rise'.

"Anyway, it's the predicted impact that really matters. The IPCC report predicts that 'many millions more people than today are projected to experience floods each year due to sea level rise'. Some of Mr Marjoribanks' other statements should also be carefully scrutinised. He claims that 'it's an undisputed fact that measured global temperatures have actually been falling over the (*past*) 10 years', and that the Greenland and Antarctic ice masses are 'if anything, increasing in volume as a result of increased snowfall'. The IPCC report debunks both myths in spectacular fashion. The 11 warmest years since records started in 1850 were all recorded in the past 12 years and there is absolutely no indication that this warming trend is in reverse. And while the IPCC report does acknowledge that there is increased precipitation in polar areas, it indicates that this is more than offset by increased melting caused by climate change and that ice coverage is indeed shrinking. I'd encourage anyone to read the IPCC report. But they should be reading it properly."

#### Garry Davies, Perth Resident & Taxpayer Extract : West Australian (Page 22), 07 Nov 2008

Following up – Intergovernmental Panel on Climate Change reports available at http://www.ipcc.ch/.

Clean coal aim a dirty deal for WA – Environmentally friendlier natural gas penalised under Rudd's knee-jerk climate strategy : "An oxymoron is not an idiot who likes clean air. It is simply the name for a combination of contradictory or incongruous words. And the biggest oxymoron you are likely to hear these days is the phrase clean coal. Coal is environmentally dirty and no one has yet succeeded in proving it can be economically burnt to make energy in a clean way. However, plenty have already failed trying to make coal clean, mainly by burying its waste gases deep underground. Even right here in WA, a project to sequester  $CO_2$  was quietly scrapped because the geological formations would have allowed it to escape. There's plenty of politics attached to the clean coal lobby in Australia, especially in the States where coal mining matters to the economy : Queensland, New South Wales and Victoria."

"The Rudd Government's Treasury modelling of its so-called Carbon Pollution Reduction Strategy (CPRS) – the new name for emissions trading – is strangely predicated on Carbon Capture and Storage (CCS) being technically achievable, economically feasible, and able to be implemented quickly. None of those three conditions is anywhere close to being a reasonable assumption. And it should be noted that if CCS is proved to work, *then* the technology almost certainly couldn't be fitted to existing coal-fired power stations. It is not surprising that the modelling found CPRS could be introduced with a small impact on economic growth when the bulk of its work assumes CCS works. A tiny part of the report mentions what happens if it doesn't work."

"There is a wider issue here that is not often addressed in terms of CCS and it relates to Professor Jorg Imberger's comments in this newspaper this week about our belief in our invincibility against global warming. We got ourselves into this mess by believing we could vent our pollution into the atmosphere with impunity. We are now working on the basis of being able to push it underground also with impunity - it's the same mindset. Professor Imberger says we have little hope of reversing global warming and our efforts should go into preparing for it and adapting to it."

"The Commonwealth Government needs to take into account the economic ramifications of the CPRS on the Liquefied Natural Gas (LNG) industry, if this results in new LNG projects being delayed, WA Treasury has said. Much of WA's new domestic gas supply depends on applying the State's domestic reservation gas policy to new LNG developments. In other words, if those projects do not go ahead because carbon-trading makes them comparatively too expensive, WA runs out of gas for local use. We should understand that there is a natural bias in this presumption that CCS works that acts against WA interests. The scheme favours coal (read Eastern States) against gas (read WA). Everyone would like to see climate change reversed and most people are prepared to play their part. But there is no reason to believe that the early adoption of carbon trading in Australia will do anything other than harm our (WA's) economic interests while doing nothing to save the planet – and most of that pain will be felt in Western Australia."

#### Paul Murray, The West Australian Newspaper Extract : West Australian (Page 21), 08 Nov 2008

**Following up** – And of course, while the gas industry is trying to establish a level playing field with the coal industry, both are lobbying to preclude the uranium industry from establishing a foothold in the provision of base-load power generation in Australia.

*Ferguson rejects Ripper N-claims :* "Federal Resources Minister Martin Ferguson is demanding Eric Ripper drop his opposition to uranium mining, accusing the State Labor leader of 'patently false' and irresponsible scaremongering. Mr Ferguson rejected Mr Ripper's claim that expanding uranium mining to WA would increase the nuclear and terrorist threat and inevitably lead to nuclear power stations in Australia. There are many issues associated with uranium mining, Mr Ripper said yesterday. There's the question of the safety of mining and of transport, for workers and people who live close to the transport routes; there's the question of the safety of nuclear power stations; there's the question of the diversion of nuclear material to terrorist activities; and there's the question of the storage of the waste."

"Mr Ferguson said claims by the uranium mining industry's opponents, suggesting the Australian industry is unsafe for workers, risks supplying nuclear material to terrorists, and obliges Australia to store the nuclear waste of other nations, are patently false and such scaremongering is irresponsible. Mr Ferguson said Australia had the strictest uranium export rules in the world and only sold to countries that met all the safeguard requirements and which are signatories to the Nuclear Non-Proliferation Treaty. The Government is strongly committed to ensuring Australian uranium is only used for peaceful purposes by enforcing our strict safeguards policy, he said. In addition, the Government will prohibit the establishment in Australia of nuclear power plants – and all other stages of the nuclear fuel cycle – and remain strongly opposed to importation and storage of nuclear waste that is sourced from overseas, in Australia.

#### Hon. Martin Ferguson MHR, Federal Minister for Resources Extract : West Australian (Page 6), 19 Nov 2008

*New MP calls for nuclear energy rethink :* "A new Liberal MP has reignited the uranium debate, telling State Parliament it is ridiculous to mine and export yellowcake but continue to oppose the use of nuclear power in Australia. In a controversial maiden speech on Tuesday, Jandakot MLA Joe Francis said it was 'morally and logically incoherent' for Australians to support mining and exporting the nation's uranium for use in other countries as a low carbon energy source but oppose nuclear power plants in their own backyard. Mr Francis told Parliament that uranium mining, which has been approved by the State Government after it lifted Labor's long-held ban, went hand-in-hand with reducing global carbon emissions. Any response to carbon emissions that doesn't include a substantial role for nuclear energy is simply not credible. Its opponents have worked hard in Australia to invest the words uranium and nuclear with fear and loathing but many nations, including France and Japan, generate over half of their electricity from nuclear sources. Solar, wind and geothermal (energy) all have a role but they need the sheer grunt of fission, Mr Francis said."

"Outside Parliament yesterday, Mr Francis said WA had an abundance of natural gas and did not have the population or concentration of industry to sustain a nuclear power plant, but other States did. Certainly there are other places in Australia that should be looking at nuclear power in\stead of burning coal, such as New South Wales and Victoria. We should be exporting (uranium) and using it for power ourselves. If we were really concerned about global warming and carbon emissions, instead of bringing in an emissions trading scheme tax that's going to hit hard West Australian industry, the best thing we can do to reduce the world's carbon emissions is to mine uranium. Though *State* Cabinet lifted the *former Carpenter* Labor government's ban on uranium mining this month, the *Barnett Coalition* Government remains opposed to nuclear power and nuclear waste dumps."

#### Joe Francis MLA, Member for Jandakot (Liberal) Article : West Australian (Page 2), 29 Nov 2008

**World oil demand falls for the first time in 25 years :** "World oil demand is set to fall this year for the first time in 25 years, as a broadening economic recession undermines energy consumption. New figures from the International Energy Agency (IEA) yesterday showed that global demand for oil will fall to an average of 85.8 million barrels per day this year – 200,000 barrels lower than in 2007 and representing the first year-on-year decline since 1983. Plunging demand is being led by the US easily the world's largest oil market, where the IEA says that consumption has been hammered this year by successive blows, including a financial crisis, high oil prices, devastating hurricanes, and to cap it all an officially recognised economic recession. The Parisbase energy adviser to the OECD (*Organisation for Economic Cooperation and Development*) club of 28 (*sic 31 including the European Union*) rich nations says that October demand in the US for all oil products was about 18.5 million barrels per day, 10% down on last year and the lowest level recorded since 1995."

"But weakening demand was not restricted to the United States. Japan, the world's second-largest economy, which officially entered recession last month, reported an even bigger decline of more than 11% to 4.3 million barrels per day. Canada, Mexico,

France, Italy and Spain also all suffered big falls while British demand softened by 2.2% to 1.7 million barrels per day. Gareth Lewis-Davies, director of commodities research at Dresdner Kleinwort, said : There has been a marked slow-down in trade and economic activity around the globe. He said that the industrial and commercial use of energy was weakening as companies slashed production and laid off staff. At the same time consumers were restricting their personal energy use by driving and flying less and being more frugal in heating their homes."

"But despite the economic downturn, the IEA forecast that demand for oil worldwide would pick up again next year, rising to 86.3 million barrels per day as a global economic recovery took hold. David Martin, an IEA oil analyst, said that the forecast was based on the assessment by the International Monetary Fund that global gross domestic product would continue to expand next year at about 2.1%. Any recovery in demand would be driven by China, which the IEA believes will consume 8.2 million barrels of crude a day in 2009, up from 7.9 million in 2008. The IEA also indicated that the OPEC cartel of 13 oil-producing nations, which is meeting next week in Algeria, would need to announce substantial further cuts in production if it were to prevent crude prices from dropping even further."

"Mr Lewis-Davies forecast that OPEC would need to announce a reduction in production of about 1.5 million barrels per day at next week's meeting in order to stabilise prices. The prediction contrasts starkly with the US Government's view that global oil demand will continue to fall next year. The US Energy Information Administration said this week that it expected demand to shrink by 450,000 barrels per day, after a predicted 50,000 barrel decline this year. The IEA's prediction of a slump in demand for oil came as representatives from 190 countries met at a UN Climate Change conference in Poznan, Poland, to hammer out an agreement designed to cut back on global consumption of fossils fuels permanently. Some delegates at the meeting criticised the IEA for failing to recognise the potential of alternative technologies to offer other sources of energy."

#### David Martin, Oil Analyst, International Energy Agency Article : The Weekend Australian (Page 36), 13 Dec 2008

Following up – The OECD Rich List (alphabetical) : Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea (South), Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States & the European Union. Accession candidate countries include Chile, Estonia, Israel, Russia, and Slovenia; while enhanced engagement countries include Brazil, China, India, Indonesia and South Africa.

Following up – The Oil List (estimated % 2007 world production of 85.8m bbl/d) : OPEC members include Saudi Arabia (12.9%), Iran (4.6%), United Arab Emirates (2.9%), Kuwait (2.9%), Venezuela (2.8%), Nigeria (2.5%), Iraq (2.4%), Angola (2.0%), Libya (2.0%), Algeria (1.6%), Indonesia (1.0%), Qatar (0.9%), and Ecuador (0.6%) – non-OPEC producers include Russia (11.5%), United States (8.7%), China (4.4%), Canada (3.9%), Mexico (3.6%), Norway (3.0%), Brazil (2.1%), United Kingdom (1.9%), Kazakhstan (1.6%), Azerbaijan (1.1%), and India (0.9%).

*ETS 'could spark trade wars' :* "The federal Government's top climate change adviser has continued to attack its proposed emission trading system, warning that proposed assistance for export industries could lead to damaging global protectionism. Ross Garnaut said yesterday that Australia had the most to lose from an internationally fractured approach to trade-exposed industries which could develop if the Government's policies were replicated overseas. Under the Government's proposal, export industries producing the most pollution would initially receive up to 90% of required carbon permits free so they can remain competitive internationally and not move production overseas. Professor Garnaut said that method would increase the burden on other sectors of the economy and domestic households. This approach allows no logical limits to compensation, he told an agricultural conference in Cairns. There would be 'dreadful' problems if other countries followed the same path for the most emissions-intensive industries in the absence of a comprehensive global climate change deal."

"Australia has more to lose than any other country from an internationally fractured, unprincipled and partial approach to dealing with trade-exposed industries. Behind the fog of differentiated arrangements for trade-exposed industries will emerge a range of protectionist interventions that will be especially damaging to Australia. Professor Garnaut said greater protection would be tempting in recessionary times but costly and deeply counterproductive. His alternative proposal for exporters would give companies a credit equal to the rise in their product's price if trade competitors had policies similar to Australia. There would be no unlimited burden on taxpayers. Whereas the European Union and Australian white paper approach invites competitive protectionist responses amongst countries that are likely to escalate over time, the principled approach lends itself to stable international arrangements. Internationally renowned Australian ethicist Peter Singer has called for developed countries to take on the lion's share of emissions cuts, making a distinction between greenhouse gases produced for luxuries or subsistence. We wouldn't die without air-conditioning, *would we* ... some of those (developing) countries really need to provide an economy, need to provide jobs for people, he said."

# Professor Ross Garnaut, Australian Climate Change Adviser Extract : West Australian (Page 18), 12 Feb 2009

Following up – Between the recent blizzard snow falls of North America and Europe, and the extreme temperatures and bush fires of Australia, some elderly and the mothers of young infants might disagree with Peter Singer's ethical position.



Bill Leak, Cartoonist Cartoon : The Weekend Australian (Page 16), 14 Feb 2009

**Following up** – For our international readers : While the Prime Minister negotiates the latest stimulus package for the Australian economy, the balance of power held in the senate is a formidable tool, with Senator the Hon. Stephen Fielding (Family First, Victoria) on the left, and Senator the Hon. Nick Xenophon (Independent, South Australia) on the right – both members maintain a significant interest in the Murray River system.

Swimming against the tide - the blunt realities of business leadership during an economic tsunami : "Keeping afloat while swimming against the economic tide gives rise to one other expectation we in business have of government – policy coherence; in other words all arms of policy moving in a common direction. Another area which really tests policy coherence is the carbon emissions trading scheme. There are clearly business cost issues and competitive issues that weigh heavily in our mind, even though the government has modified its position from the green paper, and the costs of inaction have to be factored, depending on how one views the science. These are issues too large for much discussion today – but I do make two points: whatever the merit of a market-based cap and trade system, the decision to go ahead unilaterally as a nation is a risk to competitiveness and a weakness in the government approach. Secondly, the private sector has obligations in the area of sustainability and the reduction of energy usage and waste, irrespective of what government does or does not do with an emissions trading system. Managing environmental issues has to become a day to day focus for business management, and part of the skill set of the new business manager. This is not only what the community generally expects, but makes good business sense."

# Peter Anderson, CEO, Australian Chamber of Commerce & Industry Speech : National Press Club, 18 Feb 2009

**Rudd rumbled over misleading emissions :** "I thought I knew a fair bit about Kevin Rudd's proposed carbon pollution reduction scheme, but I've been surprised and disappointed to discover it's impervious to voluntary efforts to reduce our emissions. As Dr Richard Dennis, executive director of the Australia Institute, has been tirelessly explaining, nothing we choose to do for moral reasons will do anything to reduce the nation's total emission of greenhouse gases. That's because the total (*emissions*) will be controlled by an annually reducing cap, designed to reduce our emissions by 2020 by between 5 and 15% – it's yet to be decided – less than our emissions in 2000. And because, left to our own devices, our emissions would continue growing quite strongly, the cap serves not only as an upper limit on our total emissions but also as a lower limit. It's both a ceiling and a floor."

"So when you and I voluntarily cut back our emissions, we don't reduce the nation's total emissions, we just make more room for other, industrial polluters such as the aluminium, steel or cement industries, to increase their emissions. If you didn't know that, you could be forgiven. It seems you have a lot of mates. In an Australia Institute poll, respondents were asked what effect it would have on Australia's total greenhouse gas emissions 'if every household in Australia reduced their electricity use in the future'. About 8% weren't sure, but 78% said our total emissions would go down. Only 13% got the right answer – that total

emissions would stay the same. That's a seriously misinformed electorate, which is why I'm writing this piece. Unfortunately, the Government hasn't only failed to ensure people understand the workings of the scheme it's seeking to introduce, it hasn't resisted the temptation to mislead."

# Ross Gittins, Journalist, Fairfax Publications, Sydney Morning Herald Extract : West Australian (Page 20), 25 Feb 2009

**Following up** – the mathematics assumes that total Australian greenhouse gas emissions will not rise in the future, which is an argument premised on the assumption that the Federal government is accurately benchmarking current emissions – and can effectively regulate future emissions – both propositions are doubtful given the political will to address the issue but there is an environmental program trying to deliver the first basic outcome in Australia - is there an equivalent United Nations program for the rest of the world?

*NSW councils to get sea level rise planning guidance :* "A draft version of a policy that is designed to assist coastal councils to prepare for the predicted impacts of rising sea levels has been released for comment by the New South Wales Government. The draft policy proposes the adoption of benchmarks for predicted sea level rises that can be used by local governments when making planning decisions in areas that may be affected by rising sea levels. The sea level rise benchmarks proposed by the State Government are based on evidence from the Intergovernmental Panel on Climate Change and the CSIRO indicating sea levels will rise up to 40cm by 2050 and 90cm by 2100 when compared to 1990 sea levels. The consideration of a uniform sea level rise figure to guide council planning decisions in NSW follows the Victorian Government in late 2008 releasing a projected sea level rise figure that coastal councils will need to consider when assessing developments in coastal areas."

#### e-News : EnviroInfo Newsletter, 26 Feb 2009

Liberals call for higher emissions target and new inquiry: "The Leader of the Opposition, Malcolm Turnbull, has stated that his party would support a higher carbon emissions reduction target than that proposed by the Rudd Government, and the Greens and Opposition have joined forces to set up a Senate inquiry into the emissions trading scheme and alternative strategies to achieve the target. The proposed inquiry would examine 'the choice of emissions trading as the central policy to reduce Australia's carbon pollution', taking into account the need to achieve emission reductions and the lowest cost. The government's trading scheme, which is due to go before the Senate in May, is designed to cut emissions by a minimum of 5% by 2020, and by up to 15% if other nations commit to similar targets at the United Nations Conference on Climate Change to be held in Copenhagen in December."

"The Opposition's move to set up a new inquiry follows the Government's decision not to proceed with a House of Representatives Committee inquiry initiated by the Treasurer, Wayne Swan. The inquiry was cancelled on the grounds that the issues had become too confusing and too politicized and could be used to delay the emissions trading scheme. The Liberals' position on achieving a higher reduction target has won conditional support from the Greens, but they have called for the Liberals to specify their target and explain in detail how it would be reached. At this stage the Liberals have not clarified what the higher target would be."

#### The Hon. Malcolm Turnbull MHR, Leader of the Opposition e-News : CO<sub>2</sub> news, 04 Mar 2009

**Boffin floats plan to fight warming :** "Tinkering with the Earth's climate to chill runaway global warming, a radical idea once dismissed out of hand, is being discussed inside the White House as a potential emergency option. President Barack Obama's new science adviser, John Holdren, said the rethink had come because global warming was happening so rapidly. The concept of using technology to cool the climate was called geo-engineering. One option raised by Professor Holdren and proposed by a Nobel prize-winning scientist included shooting pollution particles into the upper atmosphere to reflect the Sun's rays. Such an experimental measure is being thought of only as a last resort, Professor Holdren said. It's got to be looked at. We don't have the luxury of ruling any approach off the table. His misgivings were that the US and other nations would not slow global warming fast enough – and several 'tipping points' could be fast approaching."

"Once such milestones were reached, such as complete loss of summer sea ice in the Arctic, it increased chances of really intolerable consequences. Professor Holdren compared global warming to being in a car with bad brakes driving towards a cliff in the fog. He and many experts believed that warming of a few degrees more would lead to disastrous drought conditions and food shortages in some regions, rising seas and more powerful coastal storms in others. At first, Professor Holdren characterised the potential need to technologically tinker with the climate as just his personal view. However, he went on to say that he had raised it in administration discussions. We're talking about all these issues in the White House. There's a very rigorous process going on of discussing all the options for addressing the energy climate challenge."

"Professor Holdren said discussions included Cabinet officials and heads of sub-Cabinet level agencies, such as the national Aeronautics and Space Administration and the Environmental Protection Agency. The 65-year-old physicist is far from alone in taking geo-engineering seriously. Last week, Princeton scientist Robert Socolow told the National Academy geo-engineering should be an available option. Professor Holdren's geo-engineering options included shooting sulphur particles into the upper atmosphere, basically mimicking the effect of volcanoes in screening out the incoming sunlight, or creating artificial trees, big towers that such carbon dioxide out of the air and store it."

Professor John Holdren, Harvard Kennedy School of Government, USA Extract : West Australian (Page 24), 14 Apr 2009

*Oil & gas majors back carbon institute :* "The Federal Government has officially launched the Global Carbon Capture and Storage Institute today, with support from 85 bodies including 40 major companies. The Institute is designed to accelerate the deployment of carbon capture and storage (CCS) technology globally and the sharing of information. Most of the major players in the oil and gas sectors in Western Australia have become foundation members including Chevron, Shell, BHP Billiton, BP,

Exxon Mobil Australia, INPEX Corporation, Santos and Woodside. Also joining the Institute are mining giant Rio Tinto and engineering firms Schlumberger and Worley Parsons."

"Chevron's Gorgon gas project hinges on CCS technology, which will be used to inject carbon dioxide into underground aquifers. Krzywosinski said the company's support of the Institute reflects its vision of providing natural gas that is essential to sustainable economic growth. Chevron Australia is proud to be playing a leading role in taking greenhouse gas (GHG) storage technologies from the research and demonstration phase to industrial scale application, thus significantly reducing global GHG emissions, Chevron Australia managing director Roy Krzywosinski said. He said the Gorgon Carbon Dioxide Injection and Storage Project, being operated by Chevron, will contribute to reaching the objectives of the Institute. The Gorgon Project will position Australia as a world leader in the application of carbon capture and storage technology with up to 3.4 million tonnes a year of CO<sub>2</sub> injected and stored underground. This is looking at injection rates between three and four times greater than is being done by existing commercial scale projects, added Krzywosinski."

"As the first company to sign a Memorandum of Understanding with the Australian Government in support of the initiative, Shell has been involved in establishing the framework of the Institute and will be an active participant in its programs. Shell Australia chairman Russell Caplan said: Shell believes CCS will be an essential technology to lower greenhouse gas emissions as the world's economy transitions to lower carbon energy sources. We need safe and cost effective ways to capture and store CO<sub>2</sub> from coal, oil and natural gas. Currently CCS is too expensive to deploy on most energy projects, so government leadership and support is vital to make this technology more economically viable and widely utilised."

# Russell Caplan, Chairman, Shell Australia e-News : WA Business News, 16 Apr 2009

*Global Carbon Storage Institute :* "The foundation members of the Global Carbon Capture and Storage Institute have met for the first time. The Canberra meeting of the foundation members marks the official launch of the institute, which has been established with the aims of accelerating the deployment of carbon capture and storage (CCS) technology globally and the sharing of information about the technology. At the time of the launch, 85 bodies, including 16 national governments and more than 40 major companies, had signed on as foundation members and collaborating participants of the institute. More members are expected to join by July 1, when the Institute will become a separate legal entity. The institute is also expected to play a key role - along with the International Energy Agency and the Carbon Sequestration Leadership Forum - in achieving the G8 group's goal of the broad deployment of CCS technology by 2020."

"The national governments joining the institute as foundation members are: the Government of Australia; the Emirate of Abu Dhabi; the Government of Canada; the Government of France; the Government of Germany; the Government of Indonesia; the Government of Italy; the Government of Japan; the Government of the Republic of Korea; the Government of Mexico; the Government of Netherlands; the Government of New Zealand; the Government of Norway; the Government of Papua New Guinea; the Government of South Africa; the Government of United Kingdom; the Government of United States of America. The European Commission is also a foundation member of the commission, along with the state governments of New South Wales; Queensland; South Australia; Victoria and Western Australia."

#### e-News : CO<sub>2</sub> News, 29 Apr 2009

**Rudd delays ETS introduction by 1 year :** "The introduction of the federal government's emissions trading scheme (ETS) has been delayed by one year to mid-2011. The government had planned to introduce the ETS in July 2010, despite opposition from business, green groups and the coalition. Legislation setting up the scheme was due to be introduced to parliament next month. Prime Minister Kevin Rudd made the announcement in Canberra on Monday, saying also that the government had decided to increase the upper limit of its carbon reduction target range to 25% of 2000 emission levels by 2020, if global agreements on emissions cuts are reached. The government's commitment to cut emissions by 5% by 2020 remains in tact. Mr Rudd said the *'significant'* changes to the scheme were made because of three factors. First, the impact of the global financial crisis on the Australian economy. Second, the need *'to continue to provide maximum impetus for a strong outcome at the Copenhagen (climate) meeting due at the end of the year'*. And third, because it was in Australia's fundamental national interest to provide *'business certainty and investment certainty for the future'*. The emissions trading scheme will be phased in from July 1, 2011."

"A one-year fixed price period will be introduced – permits will cost \$10 per tonne of carbon in 2011-12 – with the transition to full market trading to begin on July 1, 2012. Previously the government had flagged charging \$20 per tonne of carbon. This, we believe, represents an appropriate response to the current uncertainty, Mr Rudd told reporters in Canberra. A new 'global recession buffer' will be provided as part of the assistance package for emissions-intensive trade exposed industries, Mr Rudd said. Industries eligible for 60% assistance will receive a 10% buffer 'for a finite period', while industries eligible for 90% assistance will receive funding to undertake energy efficiency measures from July 1 this year. Mr Rudd said the government had committed to reducing carbon pollution by 25% of 2000 levels by 2020, but only if a global deal was struck to stabilise levels of  $CO_2$  equivalent in the atmosphere at 450 parts per million or less by 2050."

"... a 450 parts per million outcome, is an outcome consistent with Australia having the prospect of saving the (Great) Barrier Reef, Mr Rudd said. The government had engaged in '*active*' discussions with industry, the community at large and the international community, he said. In terms of the household sector, we believe that this is best enhanced ... by the establishment of the Australian Carbon Trust to allow households to do their bit by investing directly in reducing Australia's emissions and to drive energy efficiency in buildings. Mr Rudd said the government would negotiate the passage of the carbon pollution reduction scheme legislation through parliament with the coalition, the minor parties and independents. He challenged Opposition Leader Malcolm Turnbull 'to get off the fence' on emissions trading. It's time to act in the national interest and to secure this legislation

and certainty for the future. Mr Rudd, when asked whether he was breaking an election promise with his changes to the scheme, said the government was making a *'slower start'* to the ETS with better *'green outcomes'*."

"Climate Change Minister Penny Wong said it was in the national interest to have the legislation passed this year. The changes would support the global agreement Australia needed, she said. They have been the subject of detailed negotiation (with business and green groups), she told reporters, adding the scheme had been strengthened and improved. The government had listened carefully to business, which was dealing with the global recession, Mr Rudd said. The policy shift was about ensuring businesses could continue to carve out a future in a very difficult environment, he said. The government had also listened to international and environmental stakeholders committed to realising the best possible outcome at the Copenhagen talks. Our objective, of course, is to provide business with certainty for the future by providing a stable framework – legislative and regulatory framework – for the future given that this is a set of changes which effects the entire economy long term, he said."

"In December 2008, Mr Rudd said delaying the scheme would be 'reckless and irresponsible' for the economy and the environment. When asked why Monday's announcement shouldn't be seen in those terms, he said: 'What we've had is a deepening of the global financial crisis, which has now become a global economic crisis, and the worst recession in threequarters of a century'. That's what's happened. Economic data had 'consolidated and been confirmed considerably' since December, and the write-down of revenues around the world had been reflective of that. The global economic reality has worsened fundamentally over the last three to four months. The government was setting up a scheme for the next 40 years, Mr Rudd said, adding it was faced with establishing a scheme that balanced increased pressures on business and 'an environmental reality which doesn't disappear for tomorrow'. The new scheme was the 'responsible way through'."

The Hon. Kevin Rudd MHR, Prime Minister of Australia e-News : WA Business News, 04 May 2009

*Carbon Pollution Reduction Scheme – Economic cost without environmental benefit :* "The Senate Select Committee on Fuel and Energy has just tabled its report into the Rudd Government's proposed emissions trading scheme. After an inquiry which lasted nearly a year, the Committee is of the view that the Australian economy will suffer with no benefit to the environment if the Government pushes ahead with its proposed CPRS. We are of the view that the CPRS will put even more pressure on our economy; damage our international trade competitiveness; cost jobs; put our future energy security at risk; and hurt regional Australia. And all that without helping to achieve the real objective – a reduction in global greenhouse gas emissions."

**Recommendation 8** – The committee recommends that the government direct the Department of the Treasury to undertake and publish modelling of the impact of the proposed CPRS :

- (a) Assuming little or no action by Australia's major competitors to reduce greenhouse gas emissions;
- (b) Taking account of the economic conditions due to the global financial crisis;
- (c) On industry at a sectoral level, including the effective rates of compensation to industry;
- (d) On regional areas of Australia; and
- (e) In comparison with modelling of a variety of viable alternative policy scenarios aimed at Australia contributing to the reduction of greenhouse gas emissions."

**Recommendation 16** – The committee recommends that incentives be provided to encourage research and development of second generation biofuels."

**Recommendation 17** – The committee recommends that the Commonwealth and state governments remove restrictions on the mining and exporting of uranium."

**Recommendation 18** – The committee recommends that the Commonwealth Government explore the feasibility, advantages and disadvantages of producing nuclear power in Australia, as a means of reducing domestic emissions and providing energy security for Australia into the future."

#### Senator the Hon. Mathias Cormann (WA Liberal), Chairman of Committee Report : SSC Fuel & Energy, 07 May 2009

*In short – CPRS & ETS :* "If Colin Barnett, Kevin Rudd, the Greens and the others are serious about greenhouse gas emissions, they would be joining around 30 enlightened countries and be entertaining nuclear power. It is a technology that is available now, unlike various doubtful carbon-capture technologies. Targets of 20% reductions and the like are pathetic when a combination of nuclear power and electric cars could enable reductions of 90% or more."

#### John Chapman, North Perth Resident & Taxpayer Article : West Australian (Page 22), 08 May 2009

India stands firm against emissions limits : "India stood firm Sunday against Western demands to accept binding limits on carbon emissions even as US Secretary of State Hillary Clinton expressed optimism about an eventual climate change deal to India's benefit. There is simply no case for the pressure that we – who have among the lowest emissions per capita – face to actually reduce emissions, India's minister of environment and forests, Jairam Ramesh, told Clinton and her visiting delegation in a meeting. And as if this pressure was not enough, we also face the threat of carbon tariffs on our exports to countries such as yours, he added. US officials had expected the discussions to focus more on cooperation in related areas of energy efficiency, green buildings and clean-burning fuels. The minister distributed copies of his remarks to reporters in a gesture aimed at underlining India's tough stance. The comments showed the political sensitivity in India of one of the Obama administration's foreign policy priorities. Clinton said Ramesh presented a 'fair argument'. But she said India's case 'loses force' because the

fast-growing country's absolute level of carbon emissions – as opposed to the per capita amount – is 'going up and dramatically'."

# Jairam Ramesh, Minister of Environment & Forests, Indian Government e-News : WA Business News, 20 Jul 2009

India stands firm against emissions limits : "Later, at an agricultural research site in a farm field outside the capital, Clinton told reporters she is optimistic about getting a climate change deal that will satisfy India. This is part of a negotiation, she said. It's part of a give-and-take and it's multilateral, which makes it even more complex. But until proven otherwise, I'm going to continue to speak out in favour of every country doing its part to deal with the challenge of global climate change. Clinton planned talks on Monday with Indian government officials on other issues, including curbing the spread of nuclear weapons. In an interview with the TV station NDTV, Clinton said she wants to discuss what she called India's more benign interpretation of Iran's intentions, particularly regarding Iran's disputed presidential election and its nuclear program. Clinton was pressed to say whether she is worried that India has a different view of Iran, which is seen by the US as a supporter of terrorist groups, an obstacle to Mideast peace and a threat to build a nuclear bomb."

"I'm not concerned yet. I want to understand why it is and why it is held, she said, referring to India's view. Clinton's trip to India, which began with a two-day visit to Mumbai, reflects a push by the Obama administration to keep US-India relations on the improving path they have followed for more than a decade. For example, two-way trade has doubled since 2004. The two sides are working out the details of agreements that would give US companies exclusive rights to sell nuclear reactors to India and to facilitate US defence sales. Clinton could sign agreements Monday on one or both, as well as announce a broadening of US-Indian cooperation on education, agriculture and counterterrorism. India is widely viewed as an indispensable partner on climate change, along with China and Brazil. Those three countries and others in the developing world argue that the industrial world produced most of the harmful gases in recent decades and should bear the costs of fixing the problem."

"At a joint news conference with Ramesh, Clinton said the US understands India's determination to resist measures, as part of a proposed international treaty on climate change that unduly would restrict its economic growth. No one wants to stop or undermine the economic growth that is necessary to lift millions out of poverty, she said, adding that the US 'will not do anything that would limit India's economic progress.' Accompanying Clinton to India was the special US envoy for climate change, Todd Stern. He is coordinating administration efforts to negotiate a climate change treaty by December, when nations from around the world are to gather in Denmark to negotiate a successor to the 1997 (*Kyoto Protocol*) pact that expires in 2012. Countries such as China and India – the next generation of big polluters – want the industrial countries to pledge to reduce their carbon emissions by 40% over the next decade before they promise any reductions of their own."

"Stern told reporters that it's clear that the US and other developed countries will be asked to accept absolute reductions in greenhouse gas emissions from a specific baseline number, whereas India and other developing nations would be expected to accept a slowing of the upward trajectory on which their emissions are now headed. Details are to be negotiated. Clinton said that devising a comprehensive and strategic approach for achieving a clean energy future is an important topic of her India visit. I am very confident the United States and India can devise a plan that will dramatically change the way we produce, consume and conserve energy and in the process spark an explosion of new investment and millions of jobs, she said, without elaborating."

#### Hilary Clinton, Secretary of State, United States of America e-News : WA Business News, 20 Jul 2009

*Oil will run out so we have to embrace new energy sources :* "Despite all appearances, the reasons that Australia must – and will – adopt the plan (*Rudd's CPRS & ETS*) are very simple. First, the world is running out of oil, the source of 80% of all world energy. Smart countries will start preparing for this now. Dumb countries will keep postponing the adjustment. We can't foresee the precise day and the hour when we squeeze the final drop out of the planet. But we have some educated guesses. The International Energy Agency, a specialist research body set up by 28 of the governments of the world's rich countries, calculates that the known reserves of oil will run dry in about 40 years at current rates of consumption. The big oil cartel OPEC predicts that world demand for oil will rise by about 40% over the next 20 years in the absence of major policy change. This of course would bring forward the day of reckoning. While there is plenty of room for error and uncertainty in forecasting, there is only one certainty : 'One day, we will run out of oil, it is not today or tomorrow, but one day we will run out of oil and we have to leave oil before oil leaves us', the IEA's chief economist and formerly an economist with OPEC, Dr Fatih Birol, said this week."

"The countries that set a future-minded policy framework will get the most forward-looking investment. As Barack Obama's chief climate negotiator, Todd Stern, told the Herald : "The more you delay, the more you say we aren't going to do it until those guys do it, the more you keep building high-carbon infrastructure that's going to last for 30 and 40 years, the more you're going to dig yourselves into a hole. We don't think that's good for us. The move from burning wood to burning coal helped fuel the industrial revolution. Now, the world confronts the next great fuel transition. Once again, there are likely to be enormous consequences. It is an inevitability. Australia's choice is to embrace change or to hide from it. So even without believing in the reality of climate change, there are three powerful points in favour of Rudd's plan – the great transition away from a carbon-intensive economy is inevitable, even desirable, and Rudd's plan gives Australia a manageable beginning."

"The Government's standing is high, it can claim climate change as a mandate issue, and polled support for Rudd's emissions trading system is at a decisive 65%, according to a June Nielsen poll. Strikingly, public support has remained rock-solid throughout the economic downturn and despite the concerted scaremongering of the mineral lobby and the Opposition. So Rudd's scheme will pass, one way or another. The question for the Opposition and the Greens is whether they hand Rudd the trigger (*blocking legislation on successive occasions can lead to a double-dissolution of Parliament*) with which he can arm the electoral gun to blow their brains out before getting his way in the Senate. Of course, Australia is one of the world's carbon-fuel superpowers. It is entirely natural that there should be serious resistance to change. But the Australian public has seen beyond the

bested interests to the national and international interest. The Opposition will stand in the way at its peril. And that's about as clear as it gets in Canberra."

# Peter Hartcher, Political Editor, SMH Article : Sydney Morning Herald (Page 9), 08 Aug 2009

*Kevin's carbon finance bubble – CPRS & ETS :* "Kevin Rudd wants to effectively increase the GST by a quarter to 12.5%. That's in one year – after that it could go to 15% and even higher, completely outside any control by the parliament. He also wants to deliver power blackouts across Australia and even perhaps permanent electricity rationing; and/or send billions of dollars overseas so we can 'have the right' to produce our own electricity. He may even, as analysis from CEDA warns, help create a new 'carbon finance bubble' that according to CEDA research director Michael Porter, could eventually dwarf the recent Global Financial Crisis problems. If Wall Street's manipulation of debt and derivatives gave us the GFC, the emissions trading is certain to give us far worse, Porter added. This is just part of what we would get if the government's Emissions Trading Scheme (ETS) were to pass the Senate and become law."

"The Opposition's failure to effectively oppose the ETS at its appalling absolute core, might be bad enough. But any failure by him and his colleagues pales into insignificance against the disgraceful performance of the bulk of the media and in particular the Canberra Press Gallery, which has given the government a complete pass on the dynamics if not the detail of the ETS. Because, it has to be said, they mostly worship at the same church as Rudd – the entirely secular 'Earth Mother' one. And who could possibly be against – this form of – motherhood. Evidence? Where has anyone in the Gallery or indeed the wider media held the government – Rudd and his climate minister Penny Wong in particular – to account for the 'Big (and very deliberate) Lie' that lies at the very heart of it all and envelopes everything?"

"That it's the Carbon Pollution Reduction Scheme – when it has got nothing to do with reducing carbon pollution in the only true sense, bits of particulate floating around. It is all and only about – purporting to – reduce emissions of carbon dioxide. Ah yes, but when we stop or reduce those 'dreadful polluters' in the La Trobe and Hunter valleys (*coal-fired base-load power stations*) pumping out CO<sub>2</sub>, we also stop them pumping out carbon pollution at the same time, won't we? Short and total answer : no. The carbon pollution in the CPRS is only carbon dioxide. Its deceptive use is designed to foster exactly that sort of sub-conscious impression. The government is deliberately lying and the Press Gallery is utterly indifferent to, or indeed actually happy to broadcast, the lie. And it works. In arguing the disastrous flaws of the proposed ETS yesterday, somebody who knows exactly what he's talking about, nevertheless drifted off into an observation about the dreadful pollution you saw and breathed on the way to Seoul airport."

"The ETS will raise as much money as lifting the GST from 10 to 12.5% – just under \$12 billion. Indeed, if we get it, the impact would be similar to doing exactly that – it is not an exaggeration to say it effectively does raise the GST. And then keeps raising it, automatically. That's the starting sum in 2012-13. It's specifically designed to keep going up to make carbon-based energy more expensive and less available by pricing it out of the market. We might be 'saved' because of what makes the greens unhappy. Under the Rudd-Wong ETS, we can buy permits from overseas. That's just wonderful – we pay dodgy financial and other main-chancers billions to be allowed to continue to produce our own electricity. It's all supposed to be OK. Because first it is designed to save the Barrier Reef if not the entire globe. Well it wouldn't, even if we did reduce our emissions. And if we buy in the right to pollute, we wouldn't even do that. The massive uncertainty factor doesn't lie at Turnbull's feet, but the government's as the CEDA analysis shows on too clearly."

"This will lead to power brown-outs and blackouts; and perhaps permanent electricity rationing. As fellow commentator Bob Gottliebsen has shown, the disastrous long-term consequences are building right now. There is no way coal-fired power stations – especially Victoria's – can commit hundreds of millions of dollars for vital maintenance. The prospect is that if we got the ETS many power stations would become unreliable and in some cases close. This would be a disaster even if we had an alternative. The only real one has been specifically prohibited by the Rudd Government. In any event even if a decision was taken today, the earliest we could get a nuclear power station is 2025. The earliest we could expect to get significant amounts of base load power from nuclear is probably 2040, but only if we started right now. To get any sort of significant power from nuclear we would have to commit right now, to say, a dozen stations. The so-called alternatives are a joke. We could turn the entire south-eastern countryside into wind farms, and there would be times we would get zero or near enough to zero power from them all."

# Terry McCrann, Business Commentator Article : The Herald Sun (Page 29), 11 Aug 2009

*Vote fuelled by hysteria :* "We've seen mass hysteria before, but we weren't then mad enough to make it government policy. All this would be frightening enough – another sign of our retreat from reason – but what makes it worse is that this hysteria is not being fought by governments, but hyped, in the grossest dereliction of duty I've seen from our politicians in my lifetime. Tomorrow marks what may turn out to be the peak of this madness, when the Rudd Government – for purely political motives – will demand the Senate pass its colossal scheme to slash carbon dioxide emissions by making us pay more for things that need coal-fired power or other gassy energy to make or move it. What a giant con. Even the title of this multi-billion-dollar plan, Carbon Pollution Reduction Scheme, is a lie. This is not a scheme to reduce sooty carbon, but invisible carbon dioxide, which is not a pollution, but a gas essential for keeping plants alive. Nor is there any need for Parliament to vote for this CPRS now. Nothing Australia does on its tiny own will make the slightest difference to world temperatures."

"Is the world actually warming? No. Would the world be ruined by more warming, anyway? Unlikely. Will Kevin Rudd's scheme lower world temperatures? No. Will Rudd's CPRS at least cut the world's greenhouse gases? Not so anyone will notice. But won't Rudd's scheme inspire the rest of the world to make cuts, too? No. But won't moving to green power – the aim of Rudd's CPRS – be easy? No. We need our cheap coal-fired power to stay competitive with other countries and keep Australians in jobs. 'Green' wind power is not just ruinously expensive, but hopeless in slashing greenhouse gases, because it needs coal-fired stations to keep running to provide power for the many times that the winds won't blow. That's why engineer

Peter Lang, in a new analysis, found that each tonne of carbon dioxide saved by switching to wind power costs us an extra \$830 - \$1130, but would cost just \$22 if we went nuclear instead. But nuclear is banned, isn't it, in another act of madness."

"Solar power costs too much, too, and can't run in the dark. Viable 'clean-coal' technology doesn't yet exist, and when it does will cost too much. Gas power is also not so clean, and will cost more than coal. Of course, we could just spend whatever it takes for more green power, but a study of Spain's big green power industry by the King Juan Carlos University warns that the price there was crippling – about \$1million for every green job created, plus the loss of twice as many brown jobs. *So what will the Rudd scheme cost?* Much more than he says – if Rudd's scheme goes through, business must pay more than \$11.5 billion in just the first year for permits to emit gases. The cost will then rapidly rise after this 'soft' introduction to force us into switch to greener options. The government says your power bills will go up just 16% at first, but businesses will also pass on to you the costs of their permits or forced-switch to greener power."

#### Andrew Bolt, Journalist & Commentator Article : The Herald Sun (Page 30), 12 Aug 2009

*Tracking to Kyoto and 2020 interim report released :* "The Federal Government has released a new report which shows Australia's carbon pollution will continue to rise if the Carbon Pollution Reduction Scheme (*CPRS*) does not become law. The Tracking to Kyoto and 2020 report shows that without the Scheme in place, emissions are projected to be 20% above 2000 levels by 2020. The report shows that to achieve a 5% reduction in carbon pollution by 2020, Australia needs to avoid the creation of 138 million tonnes of  $CO_2$  equivalent in 2020. This is equivalent to halving the carbon pollution that comes from electricity generation and transport between 2011 and 2020. To achieve a 25% cut by 2020, Australia needs to avoid the creation of 249 million tonnes of  $CO_2$  equivalent in 2020."

"While emissions growth has slowed over the past 12 months due to the global recession, Australia's emissions continue to rise, with an average increase of 1.6% each year from September 1998 to March 2009. The report also shows that Australia remains on track to meet our Kyoto emissions target of 108% of 1990 levels over the Kyoto period from 2008 to 2012. As a result of slowed emissions growth from the global recession and the first year of the Scheme, Australia will be on track for emissions to be 107% of 1990 levels over the Kyoto period. Tracking to Kyoto and 2020 is an interim update of the previous *Tracking to the Kyoto Target* projections released in 2008. A full update of the projections will be released in late 2009."

# e-News : CO<sub>2</sub> news, 20 Aug 2009

*New mapping tool not a legal safeguard for coastal councils :* "Australia's coastal councils have been cautioned against considering a coastal mapping tool launched by the Federal Government as a safeguard to potential legal action by applicants who have development applications rejected. The National Coastal Landform and Stability Mapping Tool maps the coastal landform of Australia's entire coastline and can identify vulnerable areas to erosion under a changing climate. It shows whether the coast consists of hard rock, sand or mud; the landform type such as beaches, cliffs, shore platforms or rocky slopes; and how different parts of the coast are likely to respond to or resist drivers of change including storms and sea level rise."

"A partner in the Planning and Environment Group at Maddocks law firm, Stan Kondilios, says it would be wrong for councils to believe the tool will help shield them from liability in the event of any legal action. Mr Kondilios says coastal councils should move to incorporate the planning tool into their respective environmental planning instruments because it does not have any statutory weight in its own right. If the tool becomes an integral part of councils' planning regimes parties submitting development applications will be forced to take it into consideration, according to Mr Kondilios. He says councils will be able to give the tool "appropriate consideration" when they are making decisions on development proposals for coastal areas, but it will only form part of their suite of policies. Mr Kondilios says councils have traditionally been a "first target" for litigants in cases centred on development applications because they are the approving authority and their use of the mapping tool will not change that reality."

#### Stan Kondilios, Partner, Maddocks e-News : EnviroInfo, 27 Aug 2009

*Evacuation threat from rising seas :* "The Government would force residents to leave their homes and ban development in coastal areas threatened by rising sea levels under a move suggested by Federal MPs. Almost 100,000 buildings worth billions of dollars on Western Australia's coast are deemed at risk from the ravages of climate change. A parliamentary panel of Labor and coalition MPs has recommended that the Productivity Commission look into the projected effects of climate change on coastal properties and gaps in insurance coverage. Its report released last night said the commission could look at 'the possibility of a government instrument that prohibits continued occupation of the land or future building development on the property due to sea hazard. Department of Climate Change data says 94,000 coastal buildings are at risk in WA from projected sea level rises, coastal flooding and erosion. Between Fremantle and Mandurah, and estimated 28,000 buildings and 641km of road are at risk from erosion due to rising sea levels, a department fact sheet says."

"The committee's report into managing the coastal zone under climate change makes 47 recommendations to tackle threats to Australia's coast. The Insurance Council of Australia estimates property worth \$50 billion to \$150 billion on Australia's coastline is exposed to rising sea levels. Even if paid for over 50 years, this amounts to a cost to replace those assets of some \$1 billion to \$3 billion per annum in real terms, the council said. A council study says 896,000 homes built on land up to 6m above sea level and within 3km of existing coastline could be exposed to the effects of rising seas (presumably compounded by tidal surge and/or tsunami events). The panel said it was not aware of any specific work being done by the Government relating to insurance coverage in the coastal zone. Given the complex nature of this issue, and the potentially significant social and economic costs involved, the committee believes further investigation of this important matter is urgently required, the report said."

Ms. Jennie George MHR, Chair, APH HSC Climate Change WEA Article : West Australian (Page 19), 27 Oct 2009

# 15.12.2011 Rainbow 2000<sup>©</sup> Project – Global Warming & Sea Levels Page 17 of 30

**Following up** – the report of the House Standing Committee on Climate Change, Water, Environment and the Arts (and its 47 recommendations) certainly make for an interesting read. However, the potential for further erosion / stratification of the decision-making process must be acknowledged, and ultimately the strategic planning process is again being torn apart in a desperate bid to come to grips with a veritable plethora of issues (economy, ecology and sociology), preconceptions and prejudices – few of which are premised in scientific fact.

We must deal with global peak oil: "In response to Ross Gittens (As crisis unwinds, will we reap whirlwind, 4/11), I pose the following as something not mentioned and quite frankly will have the greatest impact on Australia in the near future and will make Ken Henry's problems become insignificant – global peak oil. I am not talking about the world running out of oil, but for anyone with a reasonable grasp of oil investment, extraction and production, this means that growth and society as we know it will be constrained by this unchangeable fact. All those in the know, including experts like America's Matt Simmons, have concluded that worldwide oil production peaked in 2005-2008 or is about to peak. Modern Western societies rely and require economic growth for their economies to work effectively."

"An increase in oil production and use is critical for economic growth to continue. Peal oil will constrain this and as decline rates continue (currently about 5% annually worldwide), economic activity will be constrained, and the world will contract in terms of growth. We are already seeing and will continue to see the death of globalisation as trade declines because of its uneconomic imbalance. We are in the early stages of re-localisation and a shift in the way our lives will be lived. Population has always been the elephant in the room; there is simply no way Australia can sustain the population growth being proposed by Dr Henry. Likewise, climate change must be addressed. However, peak oil and its factual implications will strongly mitigate much of the forecast damage that this problem. Politicians and big industry are well aware of peak oil, but terrified of making the public aware of its impact because we need growth to sustain our current consumptive way of life."

"A recent quote is worth noting – '(Steve Chu, US Secretary of Energy) was my boss. He knows all about peak oil, but he can't talk about it. If the government announced that peak oil was threatening the economy, Wall Street would crash. He just can't say anything about it.' – David Fridley, scientist at Lawrence Berkeley National Laboratory. It is time our politicians were honest with the community and addressed real issues rather than ponder the unknowable. Peak oil and Australia's energy future are more important than climate change, population growth and issues in China. It's time to be honest and deal with these issues. We have time to adapt, the limits to growth are known – we just need strong leadership."

# Geoff Botting, Baldivis Resident & Taxpayer Article : West Australian (Page 22), 09 Nov 2009

Sea levels threaten 250,000 homes : "Almost 250,000 homes, now worth up to A\$63 billion, will be 'at risk of inundation' by the end of the 21<sup>st</sup> century, under 'worst-case but plausible' predictions of rising sea levels. The study – released ahead of the crucial Senate vote on Labor's emissions trading scheme – modelled the effect of a 1.1m sea-level rise on cities and towns around Australia. Andrew Ash, director of the CSIRO climate-change adaptation flagship, said the 1.1m sea-level rise was 'certainly plausible'. As things stand, the only variation will be exactly when we reach that level, Dr Ash said. Given the study was meant to help government planning decisions, it was therefore 'both plausible and appropriate' to model a 1.1m rise. As well as the threat of inundation, the study calculates how many buildings are under threat from soft erodible shorelines."

#### Dr Andrew Ash, Director, CSIRO Climate Change Extract : Weekend Australian (Page 4), 14 Nov 2009

*That sinking feeling makes sense :* "Brian Marsh (Sinking island, 10/12) poses the question of whether recent flooding in Kiribati is the result of an actual rise in sea level or, perhaps, because of sinking of the island, and asks whether a geologist might comment on this situation. As a geologist, last year I posed the same question to the producers of the ABC weekly news program Foreign Correspondent when they did a feature program on the flooding of villages and gardens, and increased erosion in coastal areas of Kiribati, all of which they unequivocally attributed to global rise in sea level."

"One of the first books Charles Darwin published (in 1842) after returning from his five-year circumnavigation of the globe on HMS Beagle was '*The Structure and Distribution of Coral Reefs*', in which he proposed that the coral atoll islands of the Pacific had formed as a result of upward growth of tropical corals around the rims of subsiding, extinct volcances. He was of the opinion, based on observations in Tahiti and the Cocos Islands, that the rate of upward growth of the shallow-water corals kept pace with the rate of subsidence of the underlying volcanic crater, so that the living part of the reef remained close to sea level and eventually formed a ring of coral islands barely above sea level, with a deep lagoon in the centre above the subsiding volcanic crater."

"While this theory was initially controversial, it has been tested repeatedly since 1842 by generations of marine scientists and geologists, not least by (later Sir) Edgeworth David, who in 1897 led an expedition from Sydney University to drill into Funafuti Atoll, intentionally to test Darwin's proposal. After many months working in torrid tropical conditions and using drilling equipment now considered primitive and unreliable, he established that this atoll indeed consisted of a mass of dead coral underlying the living upper reef surface and rested on a base of volcanic basaltic rock at a depth exceeding 400m. What is more, there was evidence that all the coral deposits and associated reef organisms now fossilised below the living reef represented earlier parts of the reef which grew in near-surface water depths and subsequently sank well below sea level as the extinct, underlying volcano continued to subside."

"These results were confirmed on Bikini Atoll in 1947, using both direct drilling and subsurface seismic exploration, in preparation for testing of atomic weapons. Modern dating techniques provide ages for the volcanic basalts and differing levels within the coral reefs that support that support Darwin's hypothesis. While I have no direct information on the geology of the islands making up Kiribati, I suggest there is a strong possibility that the relative rise in sea level there results from sinking of the islands rather than an absolute and global rise in sea level. As Brian Marsh suggests, any significant rise in absolute sea level should be recorded all over the Pacific, indeed worldwide; this appears not to be the case."

#### Russell Hall, Willetton Resident & Taxpayer Article : West Australian (Page 21), 14 Dec 2009

**Following up** – notwithstanding subsiding volcanoes, the author witnessed the outcome of the 26 December 2004 (Boxing Day) Earthquake and Tsunami in the Indian Ocean, where the Island of Nias off the west coast of Sumatra, Indonesia (and various other port facilities) literally shifted vertically over-night relative to high water mark wherein the northern end of the island was elevated by ~2.0 m and the southern end of the same island sank by ~1.0 m – plate tectonics in action on a grand scale.

*Hunt on for carbon storage* : "Climate : The federal and Victorian governments will start looking for greenhouse gas storage basins in Bass Strait next month, kick-starting up to \$6 billion worth of appraisal and development expenditure over the next 15 years. Victoria's Department of Primary Industries plans a seismic survey in February and March of potential storage areas south of the big producing fields in Bass Strait's Gippsland Basin. Seismic surveys involve shooting energy pulses at the sea floor and analysing the returning waves to guess the geology below. In a report released last month, the Rudd government's Carbon Storage Taskforce identified the Gippsland Basin as the most important of the nation's potential storage areas. The basin is near Victoria's Latrobe Valley – home of the nation's dirtiest coal-fired power plants – and could also be used to store NSW greenhouse gases. The government wants new storage locations for greenhouse gases, rather than using Bass Strait's depleted oil and gas reservoirs or storage space below them."

"ExxonMobil does not want to inject carbon dioxide into the space below its Bass Strait fields in case it contaminates the oil and gas fields above. The taskforce has estimated the southern Bass Strait fields could take 50 million tonnes of carbon dioxide a year for 25 years. If exploration started this year, storage could be ready by 2022, the taskforce chaired by former Woodside executive Keith Spence claims. Private companies are expected to spend most of the \$6bn the taskforce says could be spent nationwide on developing a greenhouse gas storage industry between now and 2025. About \$2bn each could be spent on exploration, appraisal and development. The taskforce has recommended governments spend \$254 million on a 'pre-competitive' exploration program, such as the one planned by Victoria's Primary Industries Department, which will cost \$5m."

#### Keith Spence, Chairman, Australian Carbon Storage Taskforce Article : The Australian (Page 18), 12 Jan 2010

**Following up** – from The Weekend Australian of 24 October 2009 : Page 9 - New hope for viable clean coal projects; and Inquirer Page 8 - The Carbon Count, wherein Victoria produced 1.929 million tonnes of carbon emissions for the week from all energy use (electricity from coal, natural gas, petroleum); New South Wales 1.809Mt; Queensland 1.461Mt; and South Australia 0.3Mt – a nett aggregate emission of 5.499 million tonnes of CO<sub>2</sub> for that week \* 52 = 285.948Mt per annum – the actual annual aggregate was 304.317Mt for calendar year 2009.

**Following up** – assuming any of these numbers are accurate, South-East Australia is going to need at least 4 equivalent carbon storage solutions, and spend a lot of ETS money between now and 2022 to probably deliver an inadequate outcome. There are relative efficiencies of various energy sources to different applications; however, given peak oil scenarios and product substitution, we are looking at a fundamental economic restructure of Australian, indeed global industry and society, which will invariably disadvantage the poor to a greater extent.

**Build 35 nuclear plants to meet ETS :** "Australia will have to build about 35 nuclear power plants or resort to creative accounting to meet unrealistic targets set by Labor's emissions trading scheme, a US study found. The analysis by Roger Pielke, professor of environmental studies at the University of Colorado, warns it is impossible to predict how fast economies can 'decarbonise'. He urges governments to shift from unrealistic targets and timetables to measurable goals such as developing clean (*coal & gas*) technologies. Professor Pielke says Australia would have to become as carbon efficient by 2016 as Japan was in 2006 to meet the 25% targets. It would have to reach this aim by 2018 for a 15% reduction target or by 2020 to achieve a 5% cut. To think Australia could achieve Japanese levels of decarbonisation within the next decade strains credulity, the paper says."

"Professor Pielke has examined climate change legislation in several nations, including Japan and Great Britain. His critique of the *(proposed)* Australian legislation uses the same methodology as his analysis of Britain's Climate Act, published in Environmental Research Letters last year. He said Australia's energy use was dominated by petroleum (32%), natural gas (18%) and coal (44%). To cut carbon dioxide emissions over the next decade as implied by the 2020 targets would require 'nearly all Australian coal consumption be replaced by a zero-carbon alternative' such as nuclear or renewable. The analyses show the effort needed to decarbonise Australia and meet the ETS targets was 'Herculean'. This did not mean it could not be done, but impossible targets risked provoking public cynicism. Climate Change Minister Penny Wong said yesterday the paper ignored the important role of international permits in Australia's low-cost transition to low pollution."

#### Professor Roger Pielke, University of Colorado, USA Article : West Australian (Page 19), 13 Feb 2010

**Following up** – Senator the Hon. Penny Wong – Minister for Climate Change & Water; Member for South Australia, has declined on no less than three occasions to be briefed on the Rainbow  $2000^{\circ}$  Project (including our discussion paper Peak Oil Gas & Nuclear Power) – notwithstanding several direct requests from the Hon. Greg Hunt MP – Shadow Minister for the Environment to address our proposition.

*Focus on cleaning up Victoria's power industry*: "Five projects that have the potential to cut greenhouse gas emissions from Victoria's power industry will share in up to \$29 million of State Government funding. The projects are the first to receive money from the \$110 million Energy Technology Innovation Strategy Fund for new large-scale, pre-commercial projects focused on carbon capture storage. The projects are based in Victoria's Latrobe Valley and are about finding ways to use the state's brown coal resource in a cleaner way. The funding includes :

- \$19 million towards developing a multi-user carbon dioxide storage and transport system: this is being developed a consortium of Carbon Store Australia, TRUenergy and Mitsubishi Corporation
- up to \$3.5 million to investigate the feasibility of building a small-scale plant at an existing brown coal power station that would capture and mineralise CO2 into materials to be used in the building industry: project being developed by Calera
- up to \$3.5 million to investigate the feasibility of a gasification, pre-combustion C02 capture project being developed by HRL

- up to \$2 million to investigate the feasibility of a large- scale, gasification, pre-combustion C02 capture project being developed by TRUenergy and Southern Company; and
- up to \$1 million to investigate the feasibility of a retro-fitted, large-scale, post-combustion carbon capture plant at Loy Yang A power station being developed by Loy Yang Power, Mitsubishi and TRUenergy.

The Hon. John Brumby MLA, Premier of Victoria e-News : CO<sub>2</sub> news, 26 Feb 2010

**World cool on Rudd's clean coal funding :** "Australian taxpayers are the only financial backers for Kevin Rudd's \$100 milliona-year global clean coal initiative, as world leaders have failed to match their resounding endorsement of the idea at the G8 meeting last July with a single dollar. Praised by US President Barack Obama as a significant announcement, the Global Carbon Capture and Storage Institute (GCCSI), which is charged with speeding the development and take-up of clean coal technology, has attracted more than 200 of the world's biggest economies and companies as members. But to date their only financial commitment is to guarantee \$10 in the event of the institute goes broke."

"Mr Rudd's spokeswoman said it was anticipated CCS technology would be discussed during the US President's mid-year visit to Australia. The Australian government is pleased that the GCCSI is coordinating and helping fund international work to deploy and commercialise CCS, she said. Investing in clean energy and energy efficiency remain key planks of the government's climate change policy, including our \$4.5 billion Clean Energy Initiative. Dale Seymour, the institute's senior vice-president of strategy, to *The Australian*: The fact we've got 30-odd national governments and some sub-national governments as members is a great first-up indication that they support (the institute)."

"It's not about the money in the first instance. Someone had to come out and provide the leadership and direction in the first instance and the Australian Prime Minister has done that. Mr Seymour said one of the institute's medium-term agendas was to create a value proposition sufficient that others will see value in investing in us. Their obligation to be a member was that they would promote and facilitate and actively engage in the acceleration of CCS projects and they've all agreed to do that, he said. The institute expects this year to hand out \$50m in funding in direct support for global carbon capture and storage projects around the world. Mr Seymour said the institute had received about \$500m in applications for the funding, which would be used to burst through the barriers to their implementation. It is also commissioning detailed work on how to overcome financial, commercial, policy, regulatory and legal issues to enable projects to proceed."

"Mr Seymour said that, although the timing was tight, he was confident the G8's goal of launching 20 carbon capture and storage demonstration plants by the end of this year could be met. There were a significant number of large-scale proposals around the world being assessed in Europe, the US and Canada in addition to the \$2.5bn CCS flagships initiatives in Australia. Mr Obama has announced a taskforce aimed at getting up to 10 plants up and running by 2016 and EU nations have \$6.3bn set aside in order to develop CCS and renewable energy projects."

# Dale Seymour, Global Carbon Capture & Storage Institute Extract : The Australian (Page 1), 29 Mar 2010

**World cool on Rudd's clean coal funding :** "Opposition energy spokesman Ian Macfarlane said the failure of world governments to make a financial contribution to the institute reflected the fact that everyone from Rudd down knows there is not going to be one of these commercial plants commence for at least 20 years. At the G8 meeting in L'Aquila last year, governments had been looking for an announcement that sounded great, but everyone has done their sums and the technology was too expensive, he said. Mr Macfarlane said Mr Obama's announcement of US\$8bn (A\$8.9bn) in government guarantees for nuclear power plants in the US, announced last month, showed the President's thinking. If the Australian government were serious it would look at nuclear power for base load electricity generation."

#### The Hon. Ian Macfarlane MHR, Shadow Minister for Energy Extract : The Australian (Page 2), 29 Mar 2010

*Carbon capture focus diverting Australia's energy potential says expert :* "The pre-occupation with carbon capture and storage (CCS) by Australia's political and climate change leaders is forestalling the nation's potential transition from fossil fuels to optimal renewable energy, according to a visiting United Kingdom academic. He has warned Australia that the world cannot wait the two centuries it took the UK to achieve the transition from wood fuel in the 1600s to a coal-based energy system in order to move to one dependent on large scale CCS – a system which does not offer the same upsides as alternatives such as renewable sources of energy, better use of carbon dioxide waste and the manufacture of chemicals direct from coal and gas. The claims were made by Professor Stefaan Simons, Professor of Chemical Engineering at University College London and Director of UCL's Centre for  $CO_2$  Technology."

"One has to question whether carbon capture and storage from fossil-fuel fired power stations is the best way forward to achieving a low carbon economy, Professor Simons said. It is potentially a dangerous diversion, soaking up time, resources and funding that could be better and more readily applied to achieving a low carbon future. If we are to achieve the  $CO_2$  emission reductions necessary to avert catastrophic climate change, we need to initiate the next industrial revolution – a transition from a low efficiency, high carbon energy system to one that is high efficiency, low carbon. This will require a complete replacement of the current fossil fuel energy system with electricity generated by renewable sources of energy – accompanied by massive reductions in energy demand."

"I challenge our energy policy makers and providers to reassess whether large-scale deployment of CCS makes sense and whether we should continue to use fossil fuels as our primary energy source, or use these fossil resources to produce higher value forms of energy and chemicals. We could then replace fossil-fuel electricity production with that from renewable sources, at the same time reducing the need for CCS. We also need to mature our thinking, our innovation and our chemical industry so that  $CO_2$  becomes a valuable resource, rather than a waste product in need of disposal. Professor Simons said achieving the full transition to a reliance on electricity from renewable sources would require investment in research and development of ground breaking technologies and distribution systems and the support of industry and society, who will need to make behavioural changes."

"He said the challenge facing  $CO_2$  capture from fossil-fuel power stations is that it has never been done before at such a scale from dirty flue gas streams and, hence, the technology is still not fit for purpose for post-combustion capture. Pre-combustion capture holds more promise, but requires advanced power plant technologies. In addition, CCS is costly in relation to energy inputs and infrastructure, there is a question mark over required pipeline safety and it is not possible to quantify the exact risks of leakage from geological storage sites. For these reasons, there is limited public support for CCS, Professor Simons said. Even leaks as low as 1% could negate the whole climate mitigation effort of CCS. More respected estimates suggest that for CCS to deliver meaningful CO<sub>2</sub> reduction levels by 2050, six thousand projects worldwide, each sequestering on average one million tonnes per annum of CO<sub>2</sub>, would be required. Professor Simons said part of the solution lay in greater process and product innovation in the (petro)chemicals sector, to increase the use of renewable electricity (thereby reducing the demand from fossil fuels) and to derive new and existing chemicals from CO<sub>2</sub> so that CO<sub>2</sub> becomes a valuable feedstock rather than a waste product."

#### Professor Stefaan Simons, Director CO<sub>2</sub> Technology, University College London, UK e-News : CO<sub>2</sub> News, 07 Apr 2010

*Coastal councils urge federal MPs to back climate change inquiry findings :* "Australia's coastal councils are not letting up on their push to have the Federal Government urgently implement the recommendations of a Parliamentary inquiry into climate change and its impacts on coastal communities. The House of Representatives Standing Committee on Climate Change, Water and the Environment tabled its inquiry report in October 2009, but the government has not issued a response to the committee's recommendations. Executive Officer of the National Sea Change Taskforce, Alan Stokes, says letters are being sent to all Federal MPs stressing the importance of the government implementing the recommendations."

"The key recommendations of the standing committee included :

- An Australian Law Reform Commission inquiry into the liability issues facing public authorities and property owners in respect of climate change;
- \* A Productivity Commission inquiry into insurance cover for coastal communities; and
- The establishment of a new Coastal Zone Ministerial Council to develop an Intergovernmental Agreement on the Coastal Zone endorsed by the Council of Australian Governments."

"Mr Stokes says the government must implement the inquiry's recommendations because climate change is a daily reality that requires councils to make decisions with significant implications in terms of risk management and future liability. He says New South Wales Greens MP, Ian Cohen, has called on the NSW Government to support the Parliamentary committee's recommendations. A motion calling for support will be moved in parliament in the week of May 11 and the Greens are briefing the Opposition and cross-benchers on the motion."

#### Alan Stokes, Executive Officer, National Sea Change Taskforce e-News : CO<sub>2</sub> news, 05 May 2010

*Iceland volcano mess good for the planet :* "A halt to flights reveals a dangerous dependency. After a short respite, it seems volcanic ash is again casting uncertainty over flights into Britain and Ireland. Stranded travellers across Europe might disagree, but we might pause to say thank to the volcano that blew its stack in Iceland. When Eyjafjallajokull erupted on April 14, the diminutive but destructive Icelandic corker did us a favour. Believe it or not, all that ash swirling into the upper atmosphere was a boon to the war on global warming. About 11,000 European and international flights a day were cancelled, and grounded aircraft don't pollute. With air travel over much of Europe cut 60%, CO<sub>2</sub> emissions from aviation fell about 200,000 tonnes a day, according to data from the independent British research group RDC Aviation. Since the volcano was estimated to be issuing 150,000 tonnes of CO<sub>2</sub> daily, Europe temporarily lowered its carbon footprint by about 50,000 tonnes a day. The reduction is a mere hiccup, of course. The savings is a little more than Luxembourg's and a little less than Estonia's daily output of heat-trapping gases."

"Planes are the fastest growing source of man-made greenhouse gasses, according to a 2006 report by the European Federation for Transport and Environment. While aircraft fuel efficiency is predicted to improve by 1-2% a year, annual air traffic is predicted to rise 5% every year, pushing  $CO_2$  emissions up. Cars cough out far more greenhouse gases than aircraft, but according to the British Aviation Environment Federation, flight emissions are growing six times as fast as car emissions. Burning jet fuel at altitude has double the damaging effect. The BAEF estimates if the growth rates in air travel continue, when added to the greater harm  $CO_2$  does in the clouds, aviation's impacts will exceed road traffic's in under 20 years. There are not many ways, at least in the near term, that planes can become more fuel efficient or that high-octane kerosene can be replaced by more environmentally friendly fuels. For example, one alternative fuel, bio-butanol, which can be processed from sugar beet or straw or soybeans, would require farmland the size of Florida to produce just 15% of the industry's needs."

#### Greg Goldin, Environmental Writer & Architecture Critic Extract : West Australian (Page 21), 06 May 2010

Sea-green project may not be iron-clad : "Thousands of tonnes of iron will be dumped at sea in the biggest trial of a technique that could cut global warming by sucking carbon dioxide from the atmosphere. The iron will seed vast blooms of phytoplankton, which absorb  $CO_2$  as they grow. When they die, these microscopic plants sink to the bottom of the ocean, locking away the carbon in their bodies for more than a century. Ships and aircraft would spray iron sulphate liquid over 10,000 sq km (square

*kilometres*) of the Southern Ocean in a five-year international trial costing about \$120 million that is being planned by the National Oceanography Centre at the University of Southampton (*United Kingdom*)."

"On a global scale, ocean fertilisation could remove up to a billion tonnes of carbon a year from the atmosphere, or 12% of the total produced by human activities. The process could prove much cheaper than cutting emissions and could eventually be funded by businesses to offset their consumption of fossil fuel. But scientists admit the trial, which would be 100 times larger than previous tests of ocean fertilisation and involve up to 600 tonnes of iron each year, could have side-effects on marine life. The decaying phytoplankton would reduce oxygen in the deep water, potentially resulting in more dead zones where few sea creatures can survive. The carbon could also make the deep ocean more acidic, weakening the shells of clams and other shellfish. And there is a risk the iron could result in an increase in nitrous oxide emissions, a far more powerful greenhouse gas than CO<sub>2</sub>."

"Near the surface, the iron would increase the food supply and fish stocks could multiply. Richard Lampitt, professor of oceanography at Southampton, said the trial would measure impacts as well as test how much carbon was sequestered. Previous trials demonstrated that iron does increase plankton blooms but did not measure how much sank to the bottom. His team is approaching private bodies and philanthropists to fund the trial. Professor Lampitt said such techniques for deliberately altering the climate, known as geo-engineering, were too controversial to attract government funding. Public bodies are quite nervous about this sort of activity, he said."

"The trial will need to be approved by the UN London Convention, which regulates the dumping of substances at sea. Professor Lampitt sits on the convention's scientific advisory group. He said the trial would simply accelerate the ocean's natural rate of absorption of  $CO_2$  under which emissions end up at the bottom of the sea over the next thousand years. No method of geo-engineering is going to be a silver bullet for climate change but ocean fertilisation is one of several ways that could make a contribution. A Royal Society report on geo-engineering last year expressed concern about the potential side-effects of ocean fertilisation and said that a lot more research was needed."

#### Professor Richard Lampitt, National Oceanography Centre, UK Article : The Australian (Page 9), 22 Jun 2010

Following up - the National Oceanography Centre has criticised the journalist who wrote the article for portraying inaccurate information (there is no current large-scale project) – there is clearly a strategy for further research. We believe the reference is to Australia's Southern Ocean, and the UN Convention is the Commonwealth Climate Change Communication Conference (C5), scheduled for London, United Kingdom from 24-26 November 2010.

*Crunch time looms for energy-hungry Perth :* "If Perth is to move into the future with confidence, the city must become much more resilient so it can deal with the threats posed by dwindling oil reserves and the effects of climate change. The Australian Conservation Council recently proclaimed Perth to be the least sustainable city in the country. Its Sustainability Cities Index looked at environmental performance, quality of life and resilience – and Perth came in a clear last. Energy in WA is becoming ever more expensive. The reason for this energy price rise is twofold – carbon constraints to tackle global warming and peak oil. Peak oil is the point where demand for oil permanently outstrips supply due to declining production, and since even small differences between supply and demand can send prices sky-high, this is a real problem."

"In the worst case scenario, a relatively small country such as Australia could get squeezed out of reliable oil supply as the big players in global markets, such as the United States and China, secure what's left for themselves. There are basically three scenarios for change as peak oil takes hold. Under the most benevolent change scenario prices will rise steadily but not too fast allowing constant price signals to facilitate a change to other energy sources and time to do it in. In a worse scenario, prices will ratchet up, stabilise or even fall a little, then go up again, the volatility undermining attempts to achieve orderly change. In the worst case scenario, prices will rocket and a situation of genuine emergency will apply as businesses collapse and governments enact emergency laws to secure basics like food and water."

"How imminent is peak oil? Some say it has already arrived, but a consensus of between three and five years is emerging among knowledgeable experts. For instance, the US military, supposedly the biggest single user of oil in the world, has just concluded it will start to take effect in three to five years. So it could happen soon and it could happen fast. Climate change poses two main problems for energy supplies. First, any attempt to control greenhouse gas emissions must put a hefty price on carbon emissions, say \$40-\$100 per tonne, which means a flow on (*cost*) to oil, gas and coal prices (*and as a consequence everything produced with the support of such energy sources*). Most importantly we need to develop resilience, and though this implies effective use of information and transportation systems as basic infrastructure, it also relies on a knowledgeable and appropriately skilled population who can work together to overcome adversity."

# Dr. Peter McMahon, Director WA 2020 Project, Murdoch University Extract : West Australian, 05 Jul 2010

#### Mr. John Davis, Lecturer, School of Sustainability, Murdoch University Extract : West Australian, 05 Jul 2010

*Call for global price on carbon :* "Reserve Bank board member Warwick McKibbin has called for a dramatic new approach to combating climate change, one which sets an international agreed price on carbon but shuns any targets or timetables for emissions reduction. With Prime Minister Julia Gillard expected to address the government's climate change policy as early as this week as she clears the decks ahead of an election, Professor McKibbin yesterday proposed an alternative framework which he believes is more likely to win international support and cut emissions in the near term. The proposal is contained in a paper launched at the Lowy Institute in Sydney, co-authored by analyst Greg Picker and lawyer Fergus Green, both of whom participated at last year's Copenhagen climate change conference as negotiators. The co-authors argue the current approach through the UN is failing due to the need to build a consensus among 193 member states with competing self-interest. Instead, he recommends that a new accord should be struck in the major Economies Forum on Energy and Climate, a body which comprises 17 countries, including Australia, the United States and China, and accounts for 80% of global emissions."

# 15.12.2011 Rainbow 2000<sup>©</sup> Project – Global Warming & Sea Levels Page 22 of 30

"Running parallel to last year's Copenhagen Accord, this framework would require each country to set a consistent price on carbon which rises annually. The domestic price, or price band – which could be converted into a single international carbon price equivalent – would then be applied as each country sees fit; via a carbon tax, emissions trading scheme or hybrid scheme. But no country would have to quantify its reduction in emissions, nor say when those reductions would be achieved. In effect, there would be fewer grounds for dispute, with the cuts occurring as a consequence of the price mechanism. In doing so, the approach avoids 'the hodgepodge of current policies, envisaged actions and conditionally promised targets', the paper says. Gone, too, would be complex offset arrangements where countries could import carbon credits from overseas or rely on terrestrial sinks. And while the paper recommends that government subsidies to industry be factored into the price, businesses would have the confidence of knowing what the future carbon cost would be. The all-or-nothing character of a targets and timetables system, the long timeframes involved in the compliance period and the complexity and opacity of the data ... mean such a system is ill-suited to fostering cooperation to mitigate climate change."

#### Professor Warwick McKibbin, Board Member, Reserve Bank of Australia Extract : The Australian, 08 Jul 2010

**Rising sea levels push developments back :** "The state government has announced a shift in its coastal planning policy because it believes sea levels will rise more than original (sic) predicted over the next 100 year (sic). The Western Australian Planning Commission has updated the sea level rise value from 0.38m to 0.90m by 2110. This means any coastal developments will now have a horizontal setback of 52m and it increases to total setback from 100m to 150m. Planning Minister John Day said the policy brings WA into line with out (sic) states. The new setback provisions will be applied to new development, with existing development being allowed to remain, and infill development (within an established developed area) also allowed."

"The decision has followed careful consideration and reflects the latest information from the International Panel on Climate Change (IPCC) (2007) and the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO) (2008), and is consistent with other State jurisdictions' policy positions, said Mr Day. The position statement places the State in a sound position to avoid negative and costly impacts of sea level rise on coastal development. It will ensure our State's coastal planning guidelines are based on the most up-to-date information, common sense and a precautionary approach."

#### Hon. John Day MLA, WA Minister for Planning e-News : WA Business News, 16 Sep 2010

*Climate debate hijacked again*: "Julia Gillard's new climate change committee has been given the job of building a public consensus for some sort of carbon emissions reduction scheme after the dismal failure of last year's Copenhagen talks around which her predecessor built a fantasy of expectations. Others remain highly agitated about it. They are the ones who reacted dramatically to Kevin Rudd's confusing decision to abandon his carbon trading scheme, bringing Labor within a whisker of losing government. Building consensus will not be done by denying that such a complex issue is anything but multifaceted and riddled with uncertainties. There is nothing simple about the politics of global warming and there is growing evidence that it is being used by groups with ulterior motives, which calls for the dispassionate scrutiny of policies that are presented as environmental but are often not."

"The Gillard Government's early strategy is to take a totalitarian approach to anyone who is not a hardened adherent of the Chicken Little school of climate change alarmism. Last week The Royal Society, released a new guide to climate change, which concedes there is major areas of uncertainty in the scientific understanding of what is happening. The guide summarises the current scientific evidence on climate change and its drivers, highlighting the areas where the science is well established, where there is still some debate, and where substantial uncertainties remain, is how Britain's foremost scientific body explained its approach. And the considered response of new Climate Change Minister, Greg Combet? The Government accepts the climate science, he said. The debate has moved on. Well, not according to the Royal Society's experts, But what would they know?"

"What the new guide shows is that scientists at their best are good at dealing with uncertainty. Politicians, usually for their own crass objectives, want to create certainty where it doesn't exist. Frankly, Mr Combet's response was an appallingly arrogant way to treat the public, And it is certainly no way to convince thinking Australians that the Government has the intellectual horsepower to come to terms with this issue. Ms Gillard's manipulative approach to establishing her new committee is just as bad as Mr Combet's blinkered arrogance. Her offer to include tow coalition MPs as long as they accept the precondition of the need for a carbon price not only ignores the Opposition's contrary policy but backflips on her own rejection of a carbon tax during the election campaign. It is unprecedented and an affront to the principles of a democracy that a parliamentary committee is established on the basis of its members agreeing to a preordained outcome."

"The committee will start from the position that a carbon price is an economic reform that is required to reduce carbon pollution, to encourage investment in low emissions technologies and complement other measures including renewable energy and energy efficiency, Ms Gillard said. A carbon price will build on these efforts and will cerate an incentive to reduce emissions, drive investment in renewable and low emissions technologies, create certainty for business investment and begin the adjustment of our economy to a cleaner energy future. A sceptic needs to ask only one question of those seeking to assuage public concerns over climate change : if Australia cut its carbon emissions to zero, what effect would it have on climate change? The honest answer is none. Zip. Nothing. So why do something economically damaging when it will have no affect on the problem? The answer is that Australia needs to be part of any global response that has a prospect of success. We can hardly expect those who emit substantial amounts of greenhouse gas to act if we are not prepared to do the same. The trick is to keep in step with those who need to take the biggest strides."

"Interestingly, the Gillard Government has had little to say about the United Nations climate talks under way in China this week. The conference seeks to recover from Copenhagen's failure, orchestrated mainly by the Chinese, and prepare a new international agreement for signing next year (*Cancun, Mexico*). But the Tianjin meeting shows there is still no consensus between developed and developing countries. Of the two biggest emitters, America is still domestically frozen and China will not give up rapid economic growth to limit its own accelerating greenhouse output, continuing to blame the West for the problem."

"Once again, the UN conference has bogged down as global warming is used for ulterior political objectives, such as the redistribution of wealth from rich to poor countries. And the propaganda coming from non-government organisations (NGOs) who gather at these conferences shows global warming being used to construct new trade barriers, an objective that has more to do with anti-globalisation campaigning than the climate. This is watermelon politics – green on the outside, red on the inside."

"The Greens internationally are pushing proposals for punitive tariffs against countries that do not adopt carbon reduction schemes, pushing back decades of global effort to improve competition. Ms Gillard said her committee would consider various ways of introducing a carbon price including a broad-based emissions trading scheme, a broad-based carbon levy, a hybrid of both. Friends of the Earth International told developed nations at the China conference this week to shun carbon trading which is unjust and makes bankers wealthy but prevents needed emissions cuts in developed countries. The group that says it is the world's biggest grassroots environmental network just wants developed countries to make 40% cuts to emissions and take the economic hot on the chin. It even opposes carbon offsets. So not only the science remains unsettled. There is also much uncertainty around the proper responses to seemingly environmental agendas which often have little to do with the warming climate. Both areas need informed discussion, not heavy-handed attempts to shut down or control the debate."

#### Paul Murray, Journalist Article : West Australian (Page 21), 07 Oct 2010

*We disagree – Challenging carbon talk :* "There are a number of aspects of the thee letters – Clean air, Gilda Davies; No more coal, Kamala Emanuel; and Autism link? Judy Blyth (Letters 12/10) – which must be challenged. Firstly, carbon dioxide is not a pollutant. A glance at the clear sparkling bubbles of CO2 in a glass of soda water will confirm this. CO2 acts as a fertiliser for plant growth and is the basis for nearly the entire planetary food chain. It is currently at near starvation levels. CO2 does have a mild warming effect but because of the logarithmically decreasing warming effect that accompanies increasing CO2, reducing the rate of increase is likely to have little, if any, discernible effect of future global temperature or climate. There is ample scientific evidence that there is no link between CO2 and temperature."

"Secondly, modern coal-fired power stations are not 'dirty'. They are in fact 96% efficient and the exhaust heat is captured by economisers and re-heaters. The very slight amount exiting the stack is moist, as in condensation and CO2. There is virtually no fly ash because this is removed by the precipitators or bagging plant that are 88.98% efficient. Thirdly, with the possible exception of hydro-electric power, none of the other renewable energy initiatives is economically viable. Until research and development of these sources can bring them to the stage of cost parity with fossil fuels, Australia will be seriously disadvantaged if fossil fuels are scrapped in favour of renewables."

"Fourthly, Australia's vast reserves of coal, both black and brown, can provide the basis of fuel for our heavy haulage and long distance transport industries in the future. This will be critical when the world's reserves of oil and gas are exhausted. The development of 'coal to liquids' fuel would make Australia self-sufficient in transport fuel. It follows that for Australia to impose a carbon tax or ETS would be economically foolish and would achieve no environmental gain."

#### Denis J. Whitely, Council for the National Interest (WA) Article : West Australian (Page 22), 18 Oct 2010

*Chief quits clean coal project, citing inaction :* "The internationally renowned scientist recruited by the Queensland government to head its clean coal research has resigned in protest against whet he sees as a downgrading of the area. Kelly Thambimuthu, who has strong international connections in clean coal research through his chairmanship of the International Energy Agency's greenhouse program, resigned from the State government-run ZeroGen project last month. The Queensland government announced at the weekend that it would pass the project – which aims to build a zero-emission coal-fired power station – on to the industry-run Australian Coal Association. This would delay the construction of such a power station by at least five years. Dr Thambimuthu told *The Australian* yesterday he had resigned as he felt there was not enough government commitment to finding an effective clean-coal technology. It's absolute nonsense for Queensland to export so much coal and make money from it and yet do nothing about reducing emissions, he said."

"Queensland Premier Anna Bligh said that while the technology existed to run such a plant, the cost of at least \$4.3 billion was excessive. But Dr Thambimuthu said if the government could not provide enough funding, there was no reason for the private sector to fund further exploration. There is an incentive for research for oil, gas and coal-seam gas because there are returns there, but there are no immediate returns in this area (clean coal). He said the ZeroGen project had not tried hard enough to get money from other sources, and an offer from the Japan-based Mitsubishi Corporation to provide cash in return for part-ownership of the project had not been followed up. Mitsubishi did not respond to inquiries yesterday. Dr Thambimuthu has also resigned from the Queensland government's Clean Coal Council."

# Kelly Thambimuthu, ZeroGen Article : The Australian (Page 2), 21 Dec 2010

Bligh correct to call for a debate on nuclear power – Uranium can produce the clean alternative energy we need : "Good for Anna Bligh in pointing out the obvious, that alternative energy cannot match coal-generated power as a base-load electricity source, and that means we should consider adding nuclear power to our energy options. On Thursday, Queensland's Premier called for a review of Labor Party policy, which does not permit nuclear energy now. She joins other Labor leaders, notable federal Resources Minister Martin Ferguson, in calling for the party to at least argue out its position on nuclear energy rather than continue a decades-long ban. Calls for debate are immensely unpopular with old Left Loyalists, who are still fighting the Cold War and conflate nuclear energy with nuclear weapons. Strangely enough, while they keep on condemning all but medical uses of uranium, they never mention France, which sources 75% of its power form nuclear power plants. The ban, dating from

days when fluorocarbons destroying the ozone layer was the fashionable threat to the environment, ignores the obvious: coalfired power stations are a major contributor to greenhouse gas emissions; nuclear plants are not."

"Hatred of nuclear energy runs so deep among environmentalists that many will not face the flaw in their argument, that if coal is unclean, producing power from uranium should at least be considered as a way of cutting our carbon emissions at a price the community can afford. Instead, they point to the potential of power produced by wind and the sun. But the arguments for alternative energy do not cut it. When it comes to pumping out enormous amounts of electricity to meet peak demand, solar power simply cannot compete on cost or capacity with big power stations fuelled by coal, or even uranium. The green dream of home owners becoming peasant energy farmers, producing power from rooftop solar panels, is already occurring, but at such an enormous cost that schemes are being scaled back. In NSW, subsidies meant home-produced solar power was pumped into the grid for \$6000 a megawatt hour, compared with the \$52 hourly rate that coal-fired power costs. A national subsidy scheme started by the Howard government cost taxpayers \$1 billion, but solar power still accounts for only 0.1% of the electricity market."

"As for wind power, the tall towers, with gas generators used to power turbines in still weather, produce electricity for anything between \$350 and \$1100 a tonne of carbon not emitted, stratospherically above the charge of \$14 that the Rudd government's carbon reduction plan put o the agenda at the beginning of the year. Ideology, not economics, is at the core of the environment argument. Rather than being especially interested in the cost of power, even including a carbon price, the green extreme wants us to consume less electricity, considering the lifestyle our abundant coal and gas make possible an insult to the environment. That many dismiss nuclear power makes the point. Nuclear generators are expensive to build, produce waste that must be safely stored forever and on straight-forward production costs cannot compete against power stations using Australia's abundant coal and gas reserves. But nuclear power plants are vastly cleaner in terms of carbon than coal, and produce effectively endless electricity."

"Environmentalists are right to argue that we need a suite of energy sources to reduce carbon pollution. It's just they leave out coal, which we need to clean up, and its only alternative in any world where electricity costs include a fee for emitting carbon, uranium. Certainly it will not be easy to make coal greener and nuclear power popular. Last week, Ms Bligh shut down a \$150 million clean-coal research project, which was turning out to be expensive and inefficient. And while accidents at nuclear power plants are few and far between, Australians want one near them even less than they want a noisy intrusive wind farm. But we cannot do without coal, which produces 80% of our power, and we should consider uranium. In calling for a debate while refusing to discuss lifting the Queensland ban on uranium mining, Ms Bligh is having a bob each way, demonstrating how difficult a debate on nuclear power will be for Labor. But it is a debate that everybody serious about effective ways to reduce greenhouse gas emissions knows we need (*and have to have*). "

#### Chris Mitchell, Editor-in-Chief, The Australian Editorial : The Australian (Page 13), 27 Dec 2010

*Earth's climate crisis ain't necessarily so :* "While the Gillard government's climate-change parliamentary committee plots to wreck Australia's economy with a rigged market to make motoring and electricity unaffordable as soon as the new Greens-infected Senate starts work in July, thoughtful pollies are at last – privately, quietly – beginning to ask the Gershwin question. What if it ain't necessarily so? Suppose there's no climate crisis? The Romans used to farm out tax collection to 'tax farmers' such as St Matthew. The cap-and-tax boondoggle is a tax-farming scam to impoverish the working man and enrich the new tax farmers : bankers, traders, ministers, officials and media moguls. None of them saints. Cap-and-tax in Europe has been a wickedly costly fiasco. The rigged market has collapsed twice. Member states cheated by allowing themselves more rights to emit than their actual emissions, so the price of emission rights plummeted. Then the tax farmers simply invented 90% of their carbon trades. Result : electricity prices have doubled. In the name of preventing global warming, many Britons are dying because they cannot afford to heat their homes."

"Cap and tax is as pointless as it is cruel. Australia accounts for 1.5% of global carbon emissions. So if it cut its emissions, the warming forestalled would be infinitesimal. It's worth explaining exactly why. Suppose the Australian committee's aim is to cut emissions by 20% by 2050. Anything more ambitious would shut Australia down, especially while the Greens insist on not letting the country use its own zero-carbon-emitting uranium as fuel. A 20% cut by 2050 is an average 10% cut from now until then. Carbon dioxide concentration by 2050 probably won't exceed 506 parts per million by volume (ppmv), from which we deduct today's concentration of 390 ppmv. So human-kind might add 116 ppmv from now until then. The CO<sub>2</sub> concentration increase forestalled by 40 years of cap-and-tax in Australia would be 10% of 1.5% of that 116 ppmv, or just 0.174 ppmv. So in 2050 CO<sub>2</sub> concentration would be – tell it not in Gath and Ashkelon – 505.826 ppmv, not 506. Thus what we maths wonks call the proportionate change in CO<sub>2</sub> concentration (if the committee got its way) would be 505.826 divided by 506, or 0.9997. The UN says warming or cooling, in Celsius degrees, is 3.7 to 5.7 times the logarithm of the proportionate change. It expects only 57% of manmade warming to occur by 2100 : the rest would happen slowly and harmlessly across 1000-3000 years."

"To be charitable to the committee, let us take the UN's high-end estimate. The warming forestalled by cutting Australia's emissions would be very unlikely to exceed 57% of 5.7 times the logarithm of 0.9997: that is – wait for it – a dizzying one-thousandth of a degree by 2050. I have set out this calculation to show how certainly it is known that all attempts to cut  $CO_2$  emissions will expensively fail. Focused adaptation to any adverse consequences of such warming as may occur would be orders of magnitude more cost-effective. But do we need to cut  $CO_2$  at all? Some cold facts : Satellite datasets show last year was not the warmest on record. It was not the least snow-covered year but the most snow-covered : a largely unreported gain in Antarctic sea ice since 1979 almost matches the widely reported loss of Arctic sea ice. It was not the worst year for hurricanes, but the best year : the accumulated-cyclone-energy index shows less tropical-cyclone activity worldwide than for 30 years. The forest fires in Russia and southern Australia, and the floods in Pakistan and eastern Australia, were far from the worst ever. Nor can they be attributed to human influence : the UN's climate panel has warned us against that. They were caused by naturally occurring

weather patterns called blocking highs. And global warming can scarcely be blamed after a decade without any. Nor did 2010 see the second-highest level of natural catastrophes. Yes, 90% of them were weather-related, but in most years that is true, and was true long before we could have influenced climate."

"Nor is sea level rising fast. It has risen at the rate of just 0.3m a century since satellites measured it reliably in 1993, under a quarter of the average rate during the past 11,400 years. The Greens don't believe their own whining about sea level : their Hobart office is just metres from the 'dangerously' rising ocean. Nor do most scientists believe man-made global warming will be catastrophic. Most are not climate scientists and take no view, and only a few climatologists have published on the central question how much warming there will be. Of these, the researchers using measurement and observation rather than modelling have shown that much of the radiation the models say should be warming the surface is escaping to space as before. The upper air in the tropics that the models predict should warm at thrice the surface rate is warming only at the same rate; model-predicted surface evaporation in response to warming is a third of the observed rate. The missing heat energy imagined by the models but not present as warming in the past decade is not lurking in the oceans; and the entire warming of the late 20<sup>th</sup> century can easily be explained without blaming man. Just one of these fatal discrepancies between prediction and reality – and each points to very little future warming – would normally be enough to dismiss climate catastrophism. As the Gershwins rightly concluded, It ain't nessa, ain't nessa, ain't nessa, ain't nessarily so."

#### Viscount Lord Christopher Monckton of Brenchley Article : The Australian (Page Inquirer 7), 22 Jan 2011

*Climate cash goes up in smoke :* "More than \$5.5 billion has been spent by federal governments during the past decade on climate change programs that are delivering only small reductions in greenhouse gas emissions. An analysis of government schemes designed to cut emissions by direct spending or regulatory intervention reveals they have cost an average \$168 for each tonne of carbon dioxide abated. While some have reduced emissions cost-effectively, many of the more expensive schemes are exorbitant ways of tackling climate change, costing far more for each tonne of carbon avoided than any mooted emissions trading scheme or carbon tax. The worst offenders have included the Labor government's rebates for rooftop solar panels, which cost \$300 or more for each tonne of carbon abated, and the Howard government's remote renewable power generation scheme, which paid up to \$340 for each tonne of carbon."

"By contrast, the proposed emissions trading scheme blocked by the Coalition and the Greens in the previous Parliament was expected to put a price on carbon of \$20/tonne to \$25/tonne in its early years. According to Rod Sims, chairman of the New South Wales's independent energy pricing tribunal and expert adviser to Parliament's multi-party committee on climate change, the bad policies are eroding public support just when it is needed to finally establish a price on carbon. Some of these schemes were dreamed up because we weren't doing the substantive things but some are amazingly expensive, and when we feel the pain of power price rises it lessens the public willingness to accept a sensible and efficient carbon price, Mr Sims said. We've drawn down on our political capital with little to show for it and it's going to make sensible action harder."

"The analysis of 17 federal programs with a total cost of \$5.62 billion shows many of the schemes implemented by both sides of politics are at odds with the policy goal of tackling climate change at the lowest cost to the economy. An investigation estimated the fiscal abatement cost of each scheme – the amount of government funds spent for every tonne of carbon abated. This measure is designed to show how much environmental *'bang for the taxpayer buck'* each program delivers. It does not include the costs or savings to households, businesses and other non-government players in the economy. Fiscal abatement costs ranged from less than \$1/tonne for regulations phasing out greenhouse-intensive hot water systems and incandescent light bulb, to a high of \$400/tonne or more for tax breaks and production subsidies for ethanol introduced by the Howard government."

"The Rudd-Gillard government's household insulation program cost 172/tonne; its rooftop solar panel rebates cost 300 or more a tonne; and its collapsed Green Loans program cost 120/tonne. The Howard government's remote renewable power generation program cost as much as 340/tonne. The weighted average fiscal abatement cost of all 17 programs examined came to 168/tonne. They will deliver about 25 million tonnes of carbon abatement in 2020 – less than a tenth of the total abatement needed to meet the government's target of reducing emissions in 2020 by 5% on 2000 levels. By comparison, the main existing market-based scheme, the renewable energy target (*RETs*), will deliver more greenhouse gas reductions in 2020 than all 17 spending programs combined, with an estimated implicit carbon price of 38/tonne."

"The associate director of the Australian National University's centre for climate law and policy, Andrew Macintosh, said : Market-based measures like a carbon price will be far more effective than this sort of scattergun approach. He called on the government to release its own estimates of the cost-effectiveness of climate change programs. The government is in a superb position, with the resources of Treasury and the Department of Climate Change, to calculate the marginal carbon abatement costs of its programs, he said. They should publish those costs and, where the estimates are high, they should justify why we are investing in those programs."

# Andrew Macintosh, Australian National University Article : The Age (e-News), 15 Feb 2011

**Buy out danger zone land :** "The head of Australia's general insurer says the Government may need to acquire land in areas considered too risky or expensive to insure, and that development should not be allowed in areas of **'unacceptable danger'**. Mr Wilkins said individuals had to be aware of the dangers of building in certain areas, and the Government should invest in digital elevation mapping so those with potential exposure to floods and bushfires were aware of the risks. Mr Wilkins said the industry was working on the issue, but it was imperative that people take responsibility for their personal risks, rather than relying on the Government to come to the rescue."

Mike Wilkins, Chief Executive Officer, Insurance Australia Article : West Australian (Page 30), 12 Apr 2011

*Tax will not cut emissions :* "WA's biggest electricity generator says the Federal Government's proposed carbon tax will do nothing to change its carbon dioxide emissions until it hits \$60 or \$70 a tonne – which would be three times the tax's expected \$20 starting point. Verve Energy managing director Shirley In't Veld told a Senate committee inquiry into the carbon tax that the scheme would have no impact whatsoever on reducing carbon emissions in Western Australia."

"Ms In't Veld cited financial modelling that showed that a \$20 per tonne carbon tax would push up Verve's costs by \$160 million or 15% annually, based on the utility's 2010 financial year emissions of 8.1 million tonnes of carbon dioxide. A \$25 per tonne tax would push costs up more than \$200 million, an increase that would ultimately be borne by electricity consumers or the State Government through an increased subsidy. Verve, which reported outstanding debts of \$1.2 billion last year, generates about 60% of WA's electricity and is Australia's 11<sup>th</sup> biggest carbon emitter, according to the Federal Department of Climate Change. To the extent we cannot pass through the cost of a carbon tax, we will necessarily have less funds available for maintenance and upgrades, which may affect the reliability of our generation plant, and we will have less money available for debt reduction and dividend payments."

Ms In't Veld said Verve had no capacity to bring new, cleaner base-load generating capacity on line until 2018 at the earliest. Assuming current coal and gas prices, the carbon price would need to be \$60-\$70 per tonne for cleaner-burning combined cycle gas plant to become competitive with conventional coal fired power. At \$20 a tonne there is no incentive to shift to gas in WA. This means there will be no abatement in WA, no environmental gain, but significant financial pain. Ms In't Veld said Verve would try to pass increased costs from a carbon tax on to its customers, Western Power and Synergy. But she added that ambiguous language in the complicated contracts that govern the sale of power in the WA market meant it was possible the matter would end up in court – with litigation surrounding the interpretation of contractual obligation."

# Shirley In't Veld, Chief Executive Officer, Verve Energy Article : West Australian (Page 14), 30 Apr 2011

Sea levels are constant: "In her article (How a 2C rise will change the face of WA, 4/7), Katherine Fleming wrote : The Climate Commission recently reported sea levels were rising more quickly off Western Australia than elsewhere in Australia and a national rise of 0.5-1.0m was plausible by 2100. Professor Will Steffen concedes in a report, *The Critical Decade*, that this 'guess' about sea level rises has no scientific basis. Nils Axel Morner is a leading world authority on sea levels. A former professor at the University of Stockholm and past president (1999-2003) of the International Union of Quaternary Research Commission on sea level changes and coastal evolution, Morner's expertise on sea level changes is beyond question. His studies show that sea levels have remained virtually constant for the past thirty years."

"He says there is no rational basis for the hysterical claims that the people of the Maldives – or the rest of the world – are threatened by sea levels rising at an alarming rate. Morner's view is confirmed by the Bureau of Meteorology's National Tidal Centre in its June 2009 report on sea levels at its Port Kembla Station, south of Sydney, showing an average yearly increase of 1.9mm in the combined net rate of relative sea levels. This is further confirmed by records maintained over the 20 years 1990-2010 by Maritime Services Queensland in its recently published Tidal Reference Frame for Queensland. The annual rise in sea levels along the 3000 km of Queensland coast is 0.3mm per year. At this rate over a period of 100 years the increase would be about 30mm. The only conclusion which can be drawn from these scientific measurements is that there is no rational basis for the Climate Commission's prediction of alarming sea level rises."

# Denis Whitely, Council for the National Interest (WA) Article : West Australian (Page 22), 08 Jul 2011

Anger rises ahead of the sea : "The federal government warns that as many as 274,000 homes along Australia's coast could be swallowed by rising sea levels over the next 90 years, threatening streets, suburbs and perhaps even townships. Despite these dire warnings, Australians have generally been slow to take the issue seriously, viewing it as a distant problem compared with more pressing climate change concerns. But for many thousands of families living along the coast, the issue is now starting to have a direct impact on their lives. This is not because sea levels are rising dangerously; that is not projected to happen for many decades. Instead, they are being hit by a tangle of planning rules and restrictions introduced by local governments instructed by their state governments to prepare for higher oceans in the future. Coastal councils are making real-life planning decisions based on long-range sea-level modelling that projects, with little certainty, that the ocean will rise by about 1m by 2100."

"We're the first victims of global warming and we haven't even got the rising seas yet, says Pat Aiken, one of 9000 homeowners near Gosford on the NSW Central Coast, whose houses have been tagged with a council warning that they may be threatened by future rising sea levels. Aiken claims the warnings, which are attached to Section 149 planning certificates, had the effect of devaluing the homes overnight. Single mother Janelle Upton says they nearly prevented her borrowing money against her home to finance her dream of opening a beauty salon. Fellow local Neil Crocker says his home insurance premium tripled as a result of the sea-rise designation, and he can no longer afford flood-related cover. I think it's very unfair what they've done, he says. I am not a climate change denier, but it's all being done on vague theories and projections and I've been here 30 years and have not noticed the slightest change [in sea levels]."

"In towns around coastal Australia thousands of similar battles are being fought as more than 100 coastal councils try to implement state and federal government rhetoric on rising sea levels. These councils are busily rezoning coastal land, slapping building restrictions on private homes and commercial developments, demanding homes be built higher off the ground and issuing long-term warnings about suburbs that may one day be under water. They say these new rules are justified because councils have a duty of care to prepare coastal communities for the projected rise in sea levels. But in doing so they are also clashing with many young families, pensioners. small business owners and developers who object to their livelihoods being threatened on the basis of projections that, even the government admits, are little more than an educated guess. It is a difficult issue because you are dealing with people's lives, people's property, people's wealth as well as public infrastructure and the

public interest, chairman of the federal government's advisory body on sea levels, the Coasts and Climate Change Council, Bruce Thom says. The issue is a climate change battle being waged at the grassroots level rather than on the national stage."

"Final decisions on planning for coastal houses and developments are being made by local councillors with little understanding of climate change science. Their decisions reflect the political persuasion and personal prejudices of their councils rather than any consistent application of rules. As such, the ability of young families to win planning approval to build a new home near the waterfront has become little more than a lottery, depending on which local council they live in. Everybody is just going at this problem independently and this ad hoc approach is the worst possible way to deal with it, chief executive of the Property Council of Australia Peter Verwer says. Houses are being tagged as being at risk from sea rise by local councils, based on what is, essentially, Googled research. This is a national issue which needs a national framework. The mayor of Wyong Shire Council on the Central Coast, Doug Eaton, who stood as a Liberal candidate for the federal seat of Dobell in the 1996 election, agrees. I think that state and federal government have just left it to local councils because it's all too difficult, and that is why there is such a hotchpotch when it comes to implementing rules about sea level rise."

"A report to Climate Change Minister Greg Combet from the CCCC last December says sea-level rise is one of the biggest issues facing coastal communities and yet *'there is considerable confusion about what to do and when'*. Uncertainty in parts of the science and its often poor coverage in the media, inconsistent policy settings, a lack of a historical analogue, and little guidance on cost-effective future options underpin this confusion, it says. So why has such an important issue as future sea-level projections been so badly managed in a country such as Australia, where some 85% of the population live near the coast? The federal government has outlined the potential dangers of rising sea levels but has not yet implemented a national strategy beyond seeking further advice from bodies such as the CCCC. And yet the stakes, in theory, are enormous. The Department of Climate Change estimates that the *'high end scenario'* of a 1.1m rise in sea levels around Australia by 2100 could expose \$226 billion of assets to damage and destruction, including to 274,000 residential homes as well as almost 15,000 commercial or industrial buildings and 35,000km of road and rail."

"To highlight this, the government has released dramatic maps that model the impact of sea rise on selected coastal communities, allowing people to view for themselves whether their house, street or suburb will survive the projected rise. The government says its projections were developed by the CSIRO based on the projections of the Intergovernmental Panel on Climate Change as well as more recent science and observations. The government cautions that *'estimates of sea level rise remain uncertain'*. Experts warn that while the seas are rising, the ability to accurately predict the level and pace of future rises is at best an imprecise science. Even so, each state government has adopted these CSIRO/IPCC projections as their benchmark, with slight modifications for local conditions. As a result, there is no consistent national projection for sea level rise over the next 90 years, with Queensland and Victoria projecting an 80cm rise by 2100, while NSW projects a 90cm rise, South Australia a 1m rise and Western Australia a 38cm rise."

"These state guidelines are the models that local coastal councils are told they must rely upon to implement their own planning rules for sea rise. This is clearly a massive challenge for councils because every state has different guidelines and different requirements and different sea level [projections], president of the Australian Local Government Association Genia McCaffery says. Councils are behaving responsibly by introducing rules to deal with projections of rising sea levels at such an early stage. I don't think there is any dispute that sea level rise is occurring; the argument is on the margins about its severity. So councils are taking the precautionary principle because we need to know we are preparing our communities adequately for things we know will occur. But an example of the dysfunctional approach to this issue can be found on the Central Coast, which is projected to lose up to 20,000 dwellings to sea rise by 2100, among the highest in the nation. The three adjoining coastal councils in the region, Gosford, Wyong and Lake Macquarie, have adopted very different policies on sea-level rise."

Gosford City Council has chosen to warn residents of the danger of sea level rise by encoding the Section 149 planning certificates of 9000 homes close to the ocean and nearby lakes, but has not yet implemented specific changes to the planning laws. We had to make a provision for sea-level rise because the Central Coast is predicted to have a major problem with this in the future, said Gosford Mayor Laurie Maher. This was the responsible thing for the council to do. But local resident and community activist Aiken from Davistown says he has gathered about 3000 signatures on a petition opposing the move. He says it has hurt property values and boosted insurance costs on the basis of what he describes as '*hopelessly vague*' modelling for future sea rises. Even if they have got the sea rise issue right, it's premature to be hurting people now for a problem which won't be here for many, many decades. Saratoga beautician and single mother of three Upton said the sea rise notification on her home almost cost her a \$220,000 loan application she had made to finance her new beauty parlour. To get the loan I had to provide a valuation of my house, but the valuer told me that the sea-level rise issue would affect the valuation. Initially the bank did not want to lend me the money and I had to fight hard to get it approved. I was very, very angry. Davistown resident Len Gibbons says he has had his waterfront house on the market now for 18 months and blames the sea-level warnings for being unable to find a buyer. People are really concerned around here because it has affected everyone's lives."

"Yet, in nearby Wyong council, immediately to the north of Gosford, local mayor Eaton takes a different approach. He is deeply sceptical of the sea-rise projections and fears if his council takes strong action it will destroy the local economy. My view is that eventually people will wake up to reality and dump these sea-rise projections, Eaton says. It is a complete can of worms and if we are forced to adopt these sea rise levels we would have something like 10,000 properties tagged with [Section] 149 notices. Wyong would become a no-go zone because it would decimate land and property prices. One local couple, John and Carol Hannaford, were caught in no-man's-land when they were told the house they were building needed to be raised to allow for sealevel rise. Hannaford spent many months fighting the ruling, and won the decision with Eaton's help. I won't be here in 100 years' time and neither will my house, and yet some councillors went berserk about bringing in new rules because of climate

change. Says Eaton: "Our councillors are trying to figure out a way to deal with the sea-rise issue that doesn't impact any more than we absolutely have to on people's properties. We are trying to be flexible."

"By contrast, northern neighbour Lake Macquarie City Council, has implemented detailed and strict planning provisions to deal with the issue. It even has an online questionnaire that allows homeowners to calculate their risk from projected sea-level rise. The council's sustainability manager, Alice Howe, says anyone in the district who wants to build or redevelop a coastal property within 3m of sea level is required to discuss sea-rise issues before approval can be granted. We will make a case-by-case assessment of the risks and advise what the appropriate floor heights are, Howe says. Newcastle architect Janet Henriksen, believes the sea-rise restrictions placed on development by the council are scaring away developers. Henriksen tells of how the sea-rise rules caused her to lose two potential clients, who wanted to build a shopping complex near a local waterfront. They walked away from the proposal when they heard how high the council was demanding that the floors of the shops be set."

"We worked out that the floor would have to be at eye level, so they just walked away saying, if that's the case, then the whole place will be like Venice. But these projections are all based on modelling which is pessimistic, she says. They could choose the low or middle-end scenario for sea-level rise but councils are choosing the high-level scenario and that is having a real impact on people who live in these coastal areas. Lake Macquarie City Council, like many around the country, defends its decision to use the worst-case modelling scenario for sea-level rise on the grounds that it is prudent planning. It is easier to '*relax*' from an overpessimistic prediction than it is to '*catch-up'* with an over-optimistic prediction, the council says. It is also legally safer for councils to take a more extreme position on sea-level rise, rather than do nothing and eventually be sued by property owners whose house may one day be inundated. This fear of legal liability underpins the conservative approach many councils are taking. They are urgently seeking greater clarity from state governments about their legal liabilities."

"In an angry letter to Victorian Planning Minister Matthew Guy in April, president of the Municipal Association of Victoria Bill McArthur said state government advice and support on issues relating to sea level rise was '*long overdue*'. Decisions made today by councils may well create further risks, obligations and liabilities, he wrote. Advising councils to apply '*common sense*' does not address their ongoing concerns or the absence of necessary guidance material to help inform consistent decision-making. ALGA head McCaffery says, many councils don't have a strong financial position and they have become risk-averse. They are operating in a policy vacuum, which doesn't give you confidence. She says ALGA has commissioned a report to clarify the legal liability of councils. Each of the councils that spoke to *Inquirer* are angry about the lack of support they receive from either state or federal government on the issue. We have been very frustrated because we are an island continent, and this is not really a local government issue, Gosford's Maher says."

"Barbara Norman, professor of urban and regional planning at Canberra University, says it is an issue that requires the involvement of all three levels of government. Sea-level rise is naturally a national issue, but it is the state government which controls planning and it is also a local issue. The report to Minister Combet by the CCCC warned that the nation's policies, institutions and investors were not well positioned to manage the scale of risk which climate change will bring to our coast. There is an urgent need now for improved cooperation and collaboration between all levels of government, with leadership from the Australian government, it says. Thom says the council hopes to provide policy options to Minister Combet by the end of the year to help drive a more unified national approach. It won't come a moment too soon for the dozens of coastal councils buckling under the weight of dealing with such a global issue on such a local scale."

"This is not something which we can deal with on our own, Howe says. But we are not seeing the integrated approach that we need to minimise risk and to ensure that we do not lock ourselves into a decision which we might regret in 50 years. Many of the families directly affected by the new rules that spoke to *Inquirer* are quick to criticise the scientific assumptions behind the projections. This does not mean councils are wrong to take precautionary steps. But until the science of projecting future sea rise becomes more settled and more widely accepted, the nation's coast will be a battleground for those who resent their lifestyles being curtailed by what they see as tomorrow's problem. As Budgewoi resident Hannaford says: They can't tell us what the weather will be like next week, but they can tell us that in 100 years' time the water will rise by 1m."

Peter Verwer, Property Council of Australia Article : Weekend Australian (Inquirer Page 21), 30 Jul 2011

End of Statements :

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Most of our work is now done on Facebook, using photographs in albums :

- \* Neil Smithson Albany Anzac 2014-18 (Vols. 1-2)
- Smithson Planning Albany Centenary of Anzac Alliance (Vol. 1)
- Smithson Planning Albany Major Redevelopment Opportunities (Vol. 1)
- Smithson Planning Albany Waterfront Project & Entertainment Centre (Vol. 1)
- Smithson Planning <u>Anzac Centenary Commemorations 2014-18</u> (Vols. 1-3)
- Smithson Planning Anzac Gallipoli History 2015 (Vols. 1-3)
- Smithson Planning Avon 2020 Regional Planning Strategy (Vol. 1)
- Smithson Planning Batavia 2020 Regional Planning Strategy (Vol. 1)
- Smithson Planning Fremantle South Metropolitan Regional Planning Strategy (Vol. 1)
- Smithson Planning Gascoyne 2020 Regional Planning Strategy (Vol. 1)
- \* Smithson Planning Kimberley Dreaming 2020 Regional Planning Strategy (Vol. 1)
- Smithson Planning Leeuwin 2020 Regional Planning Strategy (Vol. 1)
- Smithson Planning Perth North Metropolitan Regional Planning Strategy (Vol. 1)
- Smithson Planning Pilbara 2020 Regional Planning Strategy (Vol. 1)
- Smithson Planning <u>Rainbow 2000 Project</u> (Vols. 1-3)
- Smithson Planning Rainbow 2000 Project (Powerpoint Presentation Short Version)
- Smithson Planning Rainbow 2000 Project (Commonwealth Response)
- Smithson Planning Rainbow 2000 Project (State Government Response Vols. 1-2)
- Smithson Planning Rainbow 2000 Project (Local Government Response)
- Smithson Planning Rainbow 2000 Project (Private Sector Response)
  - Smithson Planning Rainbow 2000 Project (Media Response)
  - \* Smithson Planning Recherche Goldfields 2020 Regional Planning Strategy (Vol. 1)
- Smithson Planning Peak Oil, Gas & Nuclear Power (Vols. 1-2)
- Smithson Planning Western Australian Farmers (Vol. 1).

Discussion papers also available from the Smithson Planning website :

- <u>Albany International Airport</u> achieving regional accessibility for trade
- Albany Industrial Seaport Relocation Plan achieving regional accessibility for trade
- Albany's UNESCO World Heritage Anzac & Convict Colonial Settlement international tourism
- Albany & the Corruption Crime Commission WA the complexity of regional development
- Anzac 2014-18 a National Celebration Strategy there is a role for each Australian state / various cities
- Global Warming & Sea Level Change profound implications for insurance & property development.
- Manypeaks Transitional Governance a challenge for the State of Western Australia
- Peak Oil Gas & Nuclear Power everybody's growing concern
- Planning Instruments of Western Australia the bottom line of WA Planning Commission activities
- Planning & the Australian Media part of the problem / part of the solution

Author's notes : The Rainbow  $2000^{\circ}$  Project is both a corporate investment strategy and a doctoral research program that examines the hypothesis "Is planning the antithesis of politics? – a case study of Albany & the Great Southern Region, Western Australia, focusing on the inter-relationship between regional development and Local, State & Federal politics in contemporary Australia.

In thirteen years, the *West Australian* Newspaper and the *Sunday Times* never published one article about Rainbow  $2000^{\circ}$  that we are aware of (one exception : West letters 30 July 2007 Page 15); the *WA Business News* published one small piece suggesting some reticence about the continuity of port access in the framework of a significant port expansion program to accommodate grain, woodchips and iron ore.

*Perth television* **STW9**, **TVW7**, **NEW10 & SBS28** have never covered Rainbow  $2000^{\circ}$ , and both **GWN7** and **WIN9** as regional networks have not canvassed the regional strategy – GWN's Noel Brunning stood for the federal seat of Forrest (Independent) in 2007; Reece Whitby from Channel 7 Perth stood for the state seat of Morley (Labor) in 2008; and Karen Brown from the West Australian and the Weekend Australian stood for the state seat of Mt. Lawley (Labor) in 2008 – Whitby and Brown being part of Premier Alan Carpenter's parachute dream team – all were unsuccessful for a variety of reasons.

**ABC National** (radio & television) maintains a largely anti-development stance in the Great Southern, although nationally they have done some great things for Anzac and via Difference of Opinion. **RadioWest** sceptically accepted a paid advertisement.

There were the original paid advertisements referred to by the Albany Town & Shire Councils et.al. of 13 November 1997 appearing in the *Albany Advertiser* and the *Albany & Great Southern Weekender*, with the occasional timely paid reminder advertisement in the Albany Advertiser to reflect that Rainbow  $2000^{\circ}$  – a Regional Planning Strategy for Albany & the Great Southern was not going away that easy.

One rather prominent (and perhaps cynical) article appeared in the *Weekend Australian* in the lead-up to Mayoral / Council elections for the City of Albany in 1999, following which the author was a 'failed' candidate. Otherwise, all communication channels have been pursued vigorously with extensive material being referred to politicians on all sides of the debate, media journalists in print, radio and television and the *National Press Club* in Canberra.

The only thing people choose to believe in is the power of authority and / or the investment dollar – media was no exception, regardless of whether the program could have been beneficial to their commercial aspirations. The alternative is that the non-Albany based media from Perth and Bunbury understood only too well the implications, and misconstrued growth and development as competitive threat (doubtful).

Local politics and commercial relationship both took their toll on local newspaper coverage and balanced representation of the issues. It is reasonable to suggest that few people understand let alone endorse long-term strategic planning that doesn't directly benefit them instantly.

In twelve years, the program of community consultation / participation has included advice in some form or other to governance :

- Australian embassies of the nations of the World, the United Nations & European Union
- Governor-Generals of Australia, and every Federal member of parliament (House / Speakers & Senate / Presidents)
- Prime Ministers & Federal Cabinet Members, and the Leaders of the Opposition & Shadow Cabinet Members & Minority Parties
- Covernors of Western Australia, and every State member of parliament (Legislative Assembly & Council)
- \* Western Australian Premiers & Cabinets, and the Leaders of the Opposition & Shadow Cabinets & Minority Parties
- Premiers / Ministers of New South Wales, Victoria, Queensland, South Australia, Tasmania
- Leaders of the Opposition / Shadow Ministers of New South Wales, Victoria, Queensland, South Australia, Tasmania
- Chief Ministers / Ministers of the Australian Capital Territory and Northern Territory
- \* Lord Mayors & Councils of the Cities of Brisbane, Sydney, Melbourne, Hobart, Adelaide and Perth
- Advisory Council of Infrastructure Australia & the Convenors of the Australia 2020 Forum
- Relevant Federal and State agencies / regulatory authorities
- Great Southern, and other Regional Development Commissions of Western Australia
- Fremantle Ports, Westralia Airports Corporation, and the Albany Port Authority
- Australian Local Government Association and each State / Territory Association
- ♦ Local Government Authorities of Western Australia & the Great Southern Region
- Mayors / Presidents / Commissioners & Councillors of the Town, Shire and City of Albany
- Presidents & Executive Councillors of the Returned & Services League of Australia (National & State Divisions)
- Presidents & Executive Councillors of the Planning Institute of Australia
- Presidents & Executive Councillors of the Environment Institute of Australia & New Zealand
- Presidents & Executive Committees of the Australian, Western Australian and Albany Chambers of Commerce & Industry
- Presidents & Executive Committees of the Australian & Western Australian National Trusts & the Albany Historical Society.

For a comprehensive (and interactive) list of community participation / consultation, refer to :

- www.smithsonplanning.com.au/R2000Participation1997-2006.zip (275 A4 pages : ~ 14,422 entries : 0.81Mb zipped : 4.04Mb)
- www.smithsonplanning.com.au/R2000Participation2007-2008.zip (377 A4 pages : ~ 19,997 entries : 1.56Mb zipped : 7.46Mb)
- www.smithsonplanning.com.au/R2000Participation2009-2010.zip (431 A4 pages : ~ 22,994 entries : 2.78Mb zipped : 12.10Mb)
- ★ www.smithsonplanning.com.au/R2000Participation2011-2027.zip (223 A4 pages : ~ 11,000+ entries : 1.26Mb zipped : 5.23Mb).

It is not our place to judge the politics – that will be for the electorate, and the Commonwealth Director of Public Prosecutions. All in all – things are looking very good. A general disclaimer applies to this material – don't assume, please ask.

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# Neil R. Smithson

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