

ITER News Log December 2010

1. Buried treasure: good uses for greenhouse gas
2. Some sceptics make it a habit to be wrong
3. Emission cuts 'hard without nuclear power'
4. Global emissions to soar under Copenhagen accord: IEA
5. Book review: Merchants of Doubt
6. Cancún climate summit: Let's look beyond carbon
7. WA's greenhouse gas emissions set to soar
8. Waterfront warrior John Coombs sails against wind
9. Gillard's energy cost arguments don't add up
10. Nuclear electricity 'worth investing in'
11. Solution is nuclear power
12. Nuclear debate heats up in ALP
13. GEOFFREY LEAN MEXICO 2010 COP16
14. Cancun climate change summit: 2010 was hottest year on record
15. Warming 'will be twice the safe high'
16. Change in climate for Copenhagen II
17. No hope for climate talks, says Britain's chief scientist John Beddington
18. Nuclear power more attractive as climate changes
19. Keep dams on water agenda: PM's report
20. Warmest decade shows the heat's on
21. Let's lift nonsensical nuclear power ban
22. Carbon fight eyes 'taboo' science of geo-engineering
23. APS Responds to Member's Resignation over Climate Change
24. Treading carefully at Cancun
25. Rising sea level risk overstated
26. UN draft gets it wrong on warming
27. Nuclear the best way to ensure power needs while reducing emissions
28. N-power a way to energise Labor
29. Australians confused about climate science
30. Cancun ignores energy efficiency paradox

1. Buried treasure: good uses for greenhouse gas

Graham Lloyd, Environment editor From: The Australian November 20, 2010 12:00AMber 20, 2010 12:00AM

<http://www.theaustralian.com.au/national-affairs/climate/buried-treasure-good-uses-for-greenhouse-gas/story-e6frg6xf-1225956341987>

Captured carbon waste could eventually be put to use constructively

A NEW vision of a low carbon world is taking shape. It is a future that relies less on rooftop solar panels and high-cost alternative energy options. This vision has new roads and office blocks built using waste gases from power stations that have been turned into cement. The roads will carry cars still burning oil, but it has been recovered by pumping carbon emissions underground to increase production.

The serious money in the race to develop carbon capture and storage has turned its attention to making waste carbon pay its way.

Carbon capture and storage may not be the poster child for some environmental groups, but its success is vital if there is to be any hope of meeting the targets set for cutting carbon emissions to limit forecast rises in global temperatures.

Start of sidebar. [Skip to end of sidebar.](#)

The International Energy Agency's latest world energy outlook, released this month, contains sobering facts about where the main game must be when it comes to building a low carbon

emissions world. It says while renewables-based power generation will triple between 2008 and 2035, solar energy will only ever account for 2 per cent of global electricity production.

Over the same period the demand for electricity in China will triple. In fact, over the next 15 years, China will add electricity generating capacity equal to the total installed capacity of the US.

Most of it will come from burning conventional fossil fuels, coal, oil and gas.

The IEA projects the use of coal over three periods from 2008 to 2020 and 2035. The figures are based on three scenarios: business as usual, a new policy scenario in which all post-Copenhagen commitments are met and the 450 scenario under which deep carbon emission cuts are achieved to contain global temperature rises to 2C.

The IEA says even under the most optimistic carbon constrained scenario, global demand for each fuel source increases, with fossil fuels -- coal, oil and gas -- accounting for more than 50 per cent of the increase in total primary energy demand.

"As long as we choose to use fossil fuels, carbon capture and storage is the only option we have at the present time for decreasing the emissions from the use of those fossil fuels," says Peter Cooke, chief executive of the Co-operative Research Centre for Greenhouse Gas Technologies in Canberra.

"We have got to look at it from that perspective: if there is no carbon capture and storage, we don't actually have a solution to the greenhouse problem because so much of our energy is coming from fossil fuels at the present time and if you look at the projections of the IEA, we are going to be using more, not less, fossil fuels in the future," Cooke tells Inquirer.

Cooke is chairman of the first National CCS Conference to be held in Melbourne this month to explore the present state of global research.

As a leading coal and gas producer and exporter, Australia has a vital interest in the progress of the technology and has a significant presence in international CCS research and development.

Four Australian flagship projects are competing for \$2 billion in long-term government funding that will be awarded early next year. And through the global CCS Institute, Australia provides a key international forum for sharing the results of research into the technology.

The number of CCS projects internationally in the planning, construction and operating stages has risen by 14 per cent: from 213 in 2009 to 242 last August. The number of projects increased despite 24 previously identified projects being cancelled or delayed.

Almost \$US25 billion has been committed worldwide in government support for large-scale CCS projects, up from about \$US18 billion the previous year.

Europe is contributing 47 per cent of global funding and North America 37 per cent.

Research is focused on several options for reducing carbon emissions in the burning process, and capturing emissions once they have been released and locking them away from the atmosphere.

This includes research into capturing dilute CO₂ once it is released after the conventional burning of pulverised coal.

Alternatively, there is so-called oxy source combustion in which coal is burned in pure oxygen to concentrate the CO₂ in emissions. The downside is the front-end costs associated with separating the oxygen before combustion.

Considerable research is also being undertaken in the area of gasification in which a chemical process is used to separate the coal into hydrogen and carbon to produce a very pure form of CO₂.

This is considered a good solution because it produces hydrogen and a pure stream of CO₂, the right components to ending up with a low emissions system.

The downside is it is turning out to be a very expensive option.

At present, the cost of carbon capture and storage is estimated at between \$70 and \$120 a tonne, which proponents say is already competitive with other technologies that people are quite

happy to subscribe to.

Cooke says while power stations are the Holy Grail because they are the largest producers of CO₂ there is a strong argument for refining the technology on other high carbon emission industries such as cement, iron and steel, and fertiliser production.

"The problem we have with power generation is that it is quite a dilute source of CO₂," Cooke says. This means a large volume of gas has to be captured and concentrated before storage. "CCS is not just about coal-fired power stations, it is also about these other things and it may be cheaper to apply CCS to some of these things to achieve a bigger result," he says.

The greatest potential for a breakthrough in CCS technology is in the area of storage.

The conventional approach has been to concentrate carbon emissions into a solution that can be pumped through a pipeline and injected into porous rocks for long-term storage.

Cooke says sufficient storage capacity for the next 100 years has been identified in sedimentary basins across Australia.

Much attention is now focussed on the results from longstanding technology in the oil industry, particularly in the US, to inject waste carbon into oil reservoirs to increase the viscosity of oil as well as production yields.

The Gorgon gas project in Western Australia will use similar technology to re-inject carbon at Barrow Island in what is considered the world's largest example of carbon sequestration.

Dale Seymour, vice-president of strategy with the Global CCS Institute, says projects involving enhanced oil and gas recovery are vital for research into CCS.

"The beauty of projects that are supported by a market are two-fold," Seymour says. "They don't need any real support of a financial nature [from] government, and while they have got an economic value because they liberate oil, the greater value is in what it tells us about the feasibility of the long-term storage of carbon."

The CCS Institute includes as members the US, China and other countries that together are responsible for 82 per cent of global carbon emissions.

The institute was founded and seed-funded by the Australian government but is a non-government, not-for-profit organisation with the sole objective of accelerating the deployment of carbon capture and storage technology.

"The aim is to get technology out of the lab to demonstration scale to prove that it is going to work and you can get more efficiencies out of it," Seymour says.

He adds that the big challenge is not the cost of the technology. "The challenge is to get the first couple of projects away that aren't enhanced oil recovery."

He says China and the US are leading the way through their GreenGen and FutureGen projects, respectively.

The state-funded GreenGen project will research, develop and demonstrate a coal-based power generation system with hydrogen production through coal gasification, power generation from a combined-cycle gas turbine and fuel cells, and efficient treatment of pollutants and CO₂.

The aim is that the efficiency of coal-based power generation will be greatly improved, and the pollutants and CO₂ emissions will be near zero.

FutureGen is a collaborative project involving the world's leading coal-dependent companies and the US Department of Energy. Its objective is to validate the cost and performance of an oxy-combustion coal-fuelled power plant with near-zero emissions and an integrated pipeline and regional CO₂ storage hub.

The game changer, however, may turn out to be the development of technologies to use the carbon emissions as a feedstock for new products.

According to Seymour, new processes are starting to emerge comprising mineralisation technologies that convert carbon waste into aggregate form to make new products for the construction industry.

One advanced project is pioneering the use of carbon emissions to make a cement-like product. The California-based company Calera has developed a technology called mineralisation via aqueous precipitation, or MAP, in which gas from the power plant is mixed with water in such a way as to form solid mineral carbonates and bicarbonates.

After removal from the water and with further processing the solids have value in a number of construction applications.

"We need to be involved to promote those market opportunities," Seymour says.

The use of carbon emissions as feedstock is revolutionary because it has the potential to take capturing carbon emissions from being a cost burden to a profit centre.

In the case of Calera, there is also the potential to avoid other emissions from the products it replaces.

The company estimates that for every tonne of coal mined and the emissions captured using MAP, five tonnes of limestone and aggregate mining could be avoided.

The company says the overall process is not just carbon neutral, it is carbon negative because of the offset of the avoided carbon emissions at the cement plant.

Seymour says even with a cost range for carbon capture and storage of between \$70 and \$120 a tonne, most renewable technologies are subsidised and much more expensive than \$120 a tonne to roll out at scale on the basis of a level playing field.

"The problem is the theory on renewables for base load power is aspirationally good but it certainly has by no means been delivered to the point you can guarantee energy security," he says.

"The last time I checked, no minister or prime minister wants the power to go out at schools or hospitals or nursing homes, let alone industry.

"Energy security remains a critical component of economic security and the challenge has been to align climate security with those drivers," he says.

Seymour says the Americans are confident of having five or six carbon capture and storage plants under way by 2016 and active by 2020. China is likely to have one or two before that. Both countries could see big opportunities in pioneering second-generation carbon capture technologies and controlling the intellectual property rights behind them.

For the moment, the work is taking place behind the global politics of trying to broker an international agreement on carbon emissions.

But many of the delegates to the Australian conference will be travelling to Cancun for the latest UN climate change conference to raise the status and visibility of CCS technology as a core part of the solution to climate change.

"At some point the UN will arrive at [an] agreement and they will be looking at implementation arrangements," Seymour says.

2. Some sceptics make it a habit to be wrong

Mike Steketee From: [The Australian](#) November 20, 2010 12:00AM

<http://www.theaustralian.com.au/national-affairs/some-sceptics-make-it-a-habit-to-be-wrong/story-fn59niix-1225956414538>

NICK Minchin's views on climate change conform with a conservative strategy of sowing doubt.

LAST year, it was Nick Minchin who captured best how the climate change debate transformed from a political and policy question in the Liberal Party to an ideological issue, in the process costing Malcolm Turnbull his leadership.

The then Senate opposition leader and one of the most effective Liberal politicians of recent times told parliament the Rudd government's emissions trading legislation was "the Holy Grail of all those who zealously believe in big interventionist governments controlling every aspect of our

daily lives".

A few weeks earlier, he had told ABC1's Four Corners what he really thought. For the extreme Left, he said, the climate change debate "has provided the opportunity to do what they've always wanted to do: to sort of de-industrialise the Western world. The collapse of communism was a disaster for the Left they embraced environmentalism as their new religion."

As conspiracy theories go, it seemed a little overwrought. To assume that thousands of the world's leading scientists, backed by just about every reputable national and international scientific body, were all party to a left-wing plot to reprise some form of communism seemed far fetched.

Yet Minchin's attitude explains a great deal about why the debate on climate change has become so impassioned and often so irrational. It wasn't as though the counter-arguments were free of ideology.

Naomi Oreskes, professor of history and science studies at the University of California, San Diego, was in Australia this week promoting *Merchants of Doubt*, the book she has co-written with another American science historian, Erik M. Conway. They came across some remarkable parallels between the debate over climate change and earlier controversies over tobacco smoking, acid rain and the hole in the ozone layer. The basic strategy of those opposing action in each case was the same: "doubt-mongering".

This involved exploiting the inevitable uncertainties about aspects of the science to cast doubt on the science overall, and exploiting the media principle of balance to get publicity for the "other side of the story", thereby magnifying doubts in the public mind. It worked, delaying action sometimes for decades, and it is working again on climate change.

Even the people running the campaigns often have been the same. In the US, they are centred on a small group of former Cold War warriors who saw environmentalism as a left-wing attack on free-market capitalism and, by extension, on liberty. It is the other side of the Minchin coin.

"When the Cold War ended, these men looked for a new great threat," Oreskes and Conway write. "They found it in environmentalism. The enemies of government regulation of the marketplace became the enemies of science."

They seemed credible figures. One was Frederick Seitz, a physicist who had helped develop the atomic bomb and was later president of the US National Academy of Sciences. Another was Fred Singer, also a physicist, who was the first director of the National Weather Satellite Service and later chief scientist at the Department of Transportation under the Reagan administration.

Both were contrarians in the tobacco debate. Seitz directed a program for the R.J. Reynolds Tobacco Company that distributed grants for research defending tobacco, and Singer co-wrote a report debunking the risks of second-hand smoke. Singer, whose report was funded by the Tobacco Institute, not only attacked the science behind the finding that there were health risks from passive smoking but argued that it was part of a political agenda to expand government control over peoples lives.

The millions of pages of industry documents forced into the open as part of the ultimately successful litigation against tobacco companies revealed that the industry's own scientists had concluded by the early 1960s that smoking caused cancer and that nicotine was addictive. But that was not its public position: it argued there was no proof that smoking harmed health, as it later argued there was no proof of the harm of passive smoking. An industry executive wrote in a memo in 1969: "Doubt is our product, since it is the best means of competing with the body of fact that exists in the minds of the public."

Oreskes says that doubt, in the form of healthy scepticism, drives science forward but also makes it vulnerable to misrepresentation. "This was the tobacco industry's key insight: that you could use normal scientific uncertainty to undermine the status of actual scientific knowledge," she and Conway write.

Starting in the 50s, the evidence started piling up that sulphur and nitrogen emissions from industries and motor vehicles were polluting soil and waterways and killing fish and forests, with some samples of rain as acidic as lemon juice. Nominated by the Reagan administration in 1982

to serve on a panel to examine the issue, Singer argued there were uncertainties about the science and the cost of emissions controls were too great. The panel's report was repeatedly delayed and watered down and it took until the first Bush administration in 1990 for action to be taken. The solution? An emissions trading scheme, which reduced sulphur dioxide levels by 54 per cent between 1990 and 2007.

In 1970, British scientist James Lovelock pointed to the threat of chlorofluorocarbons, or CFCs, in the atmosphere and their ability to deplete the ozone layer. Singer, as chief scientist at the Department of Transportation in the 80s, derided the ozone scare, saying the science was incomplete and uncertain, that replacing CFCs would be difficult, dangerous and expensive and, for good measure, that the scientific community was corrupt and motivated by self-interest and political ideology. Another scientist sponsored by the aerosol industry argued that human activity was too small to affect the atmosphere.

The use of CFCs was phased out internationally in 1987 and their replacements as refrigerants are more energy efficient and not toxic. Australian scientists reported earlier this year that the ozone layer has started recovering.

And so to climate change. Carbon dioxide was identified as a greenhouse gas in the mid-19th century, and by the 1960s warnings by US scientists of its consequences were persuasive enough for president Lyndon Johnson to tell congress: "This generation has altered the composition of the atmosphere through a steady increase in carbon dioxide from the burning of fossil fuels."

When it comes to peer-reviewed science, the science is settled, claims to the contrary notwithstanding. As Conway and Oreskes say, "Nobody can publish an article in a scientific journal claiming the sun orbits the Earth, and for the same reason you can't publish an article in a peer-reviewed journal claiming there's no global warming." But there remain uncertainties about the effects of global warming, even though many of the predictions of rising temperatures and sea levels have proven correct.

The irrepressible Singer and Seitz have been among those spreading doubt. As campaigners on the theme of "when in doubt, say no" can testify, there are few more powerful tools in politics.

In 1995, a Senate committee report recorded Minchin as expressing a minority view. "Senator Minchin wishes to record his dissent from the committee's statements that it believes cigarettes are addictive and that passive smoking causes a number of adverse health effects for non-smokers." By earlier this year, he seemed to have changed his mind but not his underlying philosophy: "Smoking is a hideous habit," he said on ABC1's Q&A. "But I defend the right of smokers in a liberal, free, democratic country to smoke. If people choose to die of something, as a Liberal I think: that's your problem."

It should come as no surprise that Minchin is a climate sceptic and that he played an important part in turning around opposition policy on an ETS.

3. Emission cuts 'hard without nuclear power'

Siobhain Ryan and Leigh Dayton From: [The Australian](#) November 26, 2010 12:00AM

<http://www.theaustralian.com.au/business/mining-energy/emission-cuts-hard-without-nuclear-power/story-e6frq9df-1225961145852>

THE International Energy Agency has warned it will be "very difficult" for Australia to meet its 2050 emissions target.

This will be the result if the nation loses its high-risk gamble on carbon capture and storage technology.

IEA executive director Nobuo Tanaka said in Canberra yesterday Australia would face major adjustment costs in achieving greenhouse emissions cuts of 60 per cent by 2050 if it did not have nuclear power for back-up.

"If CCS is not readily available and if you don't use nuclear, totally renewable energy is very, very expensive, and also it is fragile in terms of its productivity," Mr Tanaka said. "So it's very costly if CCS doesn't work out."

Mr Tanaka made the remarks after the launch of a government technical paper comparing the costs of electricity generation technology, including nuclear.

The document ranked nuclear power as a cheaper zero-emissions technology than solar, but more expensive than fossil fuel power plants with carbon capture and storage.

Resources and Energy Minister Martin Ferguson, who launched the report, has acknowledged it will take another five to 10 years before Australia will know whether carbon capture and storage is viable.

Since taking office, Labor has committed \$2 billion to build up to four industrial-scale carbon capture and storage projects in Australia, but has stood by its longstanding ban on nuclear power generation.

Mr Tanaka said it was up to Australia whether it should go nuclear, but "nuclear power should be on the table for the global community".

A review of international studies, published yesterday by Australian researchers in the journal Energy, has also backed the option, identifying nuclear as the cheapest technology able to help keep global temperature rises below 2C.

Study co-author Barry Brook, the director of the University of Adelaide's Environment Institute, said coal and combined gas turbine systems combined with carbon capture and storage could be effective.

But Professor Brook's team concluded that CCS would first require "rapid major advances in technology".

Mr Ferguson said the government was directly supporting the development of a broad range of clean energy technology, not just CCS.

These included wind, solar and geothermal through the \$5.1bn Clean Energy Initiative and the increased 20 per cent by 2020 renewable energy target.

"Combined with our abundant low emissions and renewable energy resources, we are investing to enable Australia to meet its emissions reductions target," he said. Mr Ferguson said electricity prices were the "biggest cost-of-living issue" facing Australia.

The government has argued that the continued absence of a price on carbon was adding to that problem by delaying investment in low-emission power plants. It will bring together company and industry representatives in Canberra today for the first time as part of its business roundtable on climate change, which will help it set a price on carbon.

Mr Tanaka said Australia needed a carbon price but could achieve it either explicitly, through a tax or cap-and-trade emissions scheme, or implicitly, through regulation.

4. Global emissions to soar under Copenhagen accord: IEA

Published: 09 Nov 2010 11:15 CET Last updated: 09 Nov 2010 13:00 CET

PointCarbon – A Thomson Reuters Company

<http://www.pointcarbon.com/news/1.1484848>

Global CO2 output will rise 21 per cent by 2035, even if countries meet pledges to cut emissions.

5. Book review: Merchants of Doubt

STEPHAN LEWANDOWSKY, The West Australian November 17, 2010, 11:47 am

<http://au.news.yahoo.com/thewest/entertainment/a/-/arts/8337887/book-review-merchants-of-doubt/>

Merchants of Doubt

Naomi Oreskes and Erik Conway

Bloomsbury, \$39.99

Can you think of anything that might link the colour of tomatoes to the price of Bolivian llamas? I

can't. So if someone claims to be an expert on the colour of tomatoes as well as on the price of llamas we should be surprised - and if on top of that they tell us that tomatoes are blue and that llamas can fly, then we should be extremely suspicious of those claims.

Merchants of Doubt is a hard-hitting thriller that tells the story of the small number of individuals and their enablers in "think tanks" and pseudo-scientific "institutes" who used to tell us that smoking carries no risk. Oreskes and Conway reveal how the same individuals, having delayed public-health responses to smoking for decades after the scientific evidence had become overwhelming, turned their attention to denying the link between chlorofluorocarbons and ozone depletion.

The science of lung cancer has as much to do with the chemistry of CFCs as the colour of tomatoes has to do with Bolivian llamas - exactly nothing. No, the people who told us that smoking was safe before telling us that CFCs don't affect the ozone layer were not scientific experts - they were merchants of doubt, whose "product" was to create the impression of a scientific debate when there was none, simply to forestall government action that would have saved countless lives but that contravened a fundamentalist understanding of the free market.

Of course, tomatoes aren't blue and llamas don't fly, so eventually the truth about tobacco became embedded in the public's mind and anti-smoking campaigns gained traction. And the ozone hole over the Antarctic now appears to be closing again, thanks to the rejection of the merchants of doubt in favour of the scientific evidence concerning CFCs.

Alas, the very same merchants of doubt have now set their sights on climate science.

Having told us that tomatoes are blue and that llamas can fly, they now tell us that there is no link between greenhouse gas emissions and global warming - never mind the fact that the greenhouse properties of CO₂ have been known for 150 years and never mind the fact that 97 per cent of climate scientists agree that this link has been indubitably established.

Yes, the very same people who have made a career out of denying scientific evidence are now claiming to be experts about the climate.

Merchants of Doubt is a sizzling page-turner. It is also a meticulously researched history book and a portal into the world of real science: The book explains how peer review functions as a spam filter that (usually) keeps nonsensical claims out of the scientific literature. It also shows how the merchants of doubt created an entire structure of junk science to bypass the rigours of peer review.

The book tells a fascinating story, and it is a story you can hear from Professor Oreskes herself at her free public lecture at the University of Western Australia on Monday at 6pm in the Social Sciences Lecture Theatre.

· *Stephan Lewandowsky* is a Winthrop professor and an Australian Professorial Fellow at UWA. As a cognitive scientist, his research examines the role of scepticism in people's processing and updating of information.

6. Cancún climate summit: Let's look beyond carbon

It's unlikely countries will sign up to binding limits on carbon dioxide unless growth can be decoupled from the use of fossil fuels

<http://www.guardian.co.uk/environment/cif-green/2010/nov/30/cancun-carbon-growth>

Tim Yeo

guardian.co.uk, Tuesday 30 November 2010 16.14 GMT

A steel mill in Benxi, Liaoning, China. Photograph: Gilles Sabri/Corbis

A new approach is needed at the climate talks starting today in Cancún. Distrust, ideology and vested interests block the path to a binding deal to limit emissions after [Copenhagen ended in frustration and stalemate](#).

Europe is willing to act, but nervous of going it alone. President Obama wants to sign up, but is [ham-strung by a sceptical public and a Senate](#) which won't ratify a deal that doesn't include developing countries. [China is moving rapidly forward on green technology](#), but refuses to

concede any potential limits to its economic expansion. So, how do we proceed?

The perfect outcome would be a binding agreement to drastically reduce emissions – reflecting what the science tells us we need to do to avoid disaster – with all nations ending up with a fair share of rights to the atmosphere.

The political reality post-Copenhagen, however, means [this just isn't going to happen](#). We shouldn't give up on the idea of a binding cap on global emissions in the long term. But right now we need interim measures that countries can agree on, which will ensure we start moving in the right direction. The best must not become the enemy of the good. Dogmatically held positions should be set aside to find solutions.

It's unlikely that countries will sign up to binding limits on carbon dioxide unless growth can be decoupled from the use of fossil fuels. One way to do that would be to introduce rules to reduce the carbon intensity of our economies first. Instead of trying to agree binding emissions caps on whole countries, negotiators could agree [Emissions Performance Standards \(EPS\)](#) across specific industries and sectors – placing limits on the amount of carbon emitted per unit of energy.

A natural place to start would be electricity generation. Coal-burning power stations in the UK currently emit about 900 grams of carbon dioxide (gCO₂) per kilowatt hour (KWh) of electricity produced – but could be brought down to 130 gCO₂/ KWh if fitted with [CCS technology](#) to capture the carbon and store it. Gas plants are cleaner at roughly 400 g per KWh, but could get as low as 60 g if CCS becomes viable. Nuclear power emissions are as low as 20g per KWh and some renewables even lower.

Introducing Emissions Performance Standards would stimulate the development of CCS and other low-carbon technologies by showing investors, manufacturers and energy companies that the future is in clean energy. If similar standards agreed by individual countries could be extended to a regional or global level we could break the link between growth and carbon. The standards should not be set prohibitively tight at first, to avoid forcing countries to close existing power stations immediately, but could be ratcheted up progressively, driving innovation and efficiency.

Of course, like any new idea there are drawbacks. We must take care not to lose sight of the science. An EPS would not guarantee global emissions are reduced to safe levels. It would, however, ensure that all new investment in energy infrastructure had to be low carbon and that's a lot better than where we are at the moment.

It would also be argued that countries with a high proportion of low-carbon nuclear – such as France – would have an inbuilt advantage. But of course, that is also the case if binding emissions caps are introduced.

One big plus of applying an EPS to electricity generation, is that coal-fired power stations can't simply move to another country in the way that some manufacturing industries can. A global EPS would create a level playing field when it comes to energy intensity. It would also help developing countries avoid locking themselves into dirty high carbon infrastructure – and protect them against future rises in the price of carbon.

The NGOs of course wouldn't like it. But some of them have taken a damaging stance at the climate talks, blaming rich countries for every failure. One has to wonder whether calls for "climate justice" have more to do with soothing Guardian readers' post-colonial guilt complex, than with actually solving the problem.

Political reality means we should stop banging our heads against the wall and find a new way. Decoupling growth from carbon emissions is a big prize. China has already said it would reduce carbon intensity by 43%, so it may be willing to meet us halfway on this. Even the arch sceptic George Bush was willing to reduce the carbon intensity of the US economy. The Senate may swallow this if Obama can persuade them it would also improve US energy security. An international EPS may be one way to defuse the stand-off between rich and poor countries, paving the way for binding emissions limits to be agreed at a future climate summit.

- Tim Yeo MP is chair of the House of Commons Energy and [Climate Change](#) Committee

7. WA's greenhouse gas emissions set to soar

Written by Narelle Towie

Thursday, 04 November 2010 12:4

<http://www.sciencewa.net.au/topics/environment/192-News/3174-was-greenhouse-gas-emissions-set-to-soar>

WA's greenhouse gas emissions will almost double within six years despite the Government's commitment to lower pollution from five to 25 percent from 2000 levels by 2020. □□ As major WA mining projects, including Liquefied Natural Gas giants such as Gorgon, Pluto and Browse Basin, fire up, an additional 73 million tonnes of CO₂ is projected to be vented into the atmosphere a year – driving the state's emissions up to over 150 million tons per annum (mpta) of carbon by 2016.

WA's commitment to lowering carbon emissions to 25 per cent of 2000 levels could be in trouble with emissions set to rise at an alarming rate.

WA Greens senator Scott Ludlam says he was outraged that the government was deliberately encouraging and facilitating an increase in carbon emissions.

Mr Ludlam says all new projects must be forced to sequester their greenhouse gas emissions before getting the go-ahead.

"If there is going to be reduction in Australia's greenhouse emissions by a miserable 5 per cent target then the rest of the country needs to be aware that if WA doubles then it makes life a lot more difficult for everyone else," Mr Ludlam says.

The proposed Browse basin gas plant at James Price Point will emit 32 million tonnes a year of greenhouse gases, which is the equivalent of five per cent of Australia's total greenhouse gas emissions, Mr Ludlam says.

"If the industry can't demonstrate that it can safely sequester emissions, then I don't think anybody in their right mind would think it is ok for the Browse project to vent 32 million tonnes per year into the air.

"The companies behind these gas projects claim that gas is a clean energy, but they don't talk about the massive emissions that are caused when gas from high-CO₂ gas fields is processed and that CO₂ is stripped out and vented to the atmosphere."

In 2008 WA's carbon emissions across all sectors including transport was 75.9 million tonnes, according to the latest figures released by the Federal Government's Department of Climate Change and Energy Efficiency.

Australia also has a target to produce 20 per cent of its electricity from renewable sources by 2020, but WA's Energy Minister Peter Collier has admitted the state may not even reach its goal of 17 per cent as part of that agreement.

Currently the state produces around five per cent of its energy from renewable sources, which include wind, wave, solar, geothermal and tidal energy, and it is predicted to expand to 9 per cent green production by 2012, according to Mr Collier.

Four new coal plants near Collie and Eneabba will fire up in the next two years, while the State Government is also in the process of recommissioning two disused coal plants from the 1960s. □□ While some companies have pledged to reduce emissions through geo-sequestration, where carbon is captured and stored in rock or underground, projects like Chevron's Gorgon plant on Barrow Island will only sequester 40 per cent of its emissions, or 3.5 million tonnes of Co₂ a year. Mr Ludlam says geo-sequestration has yet to be proven achievable, safe or cost-effective.

In August 2009 the Federal Government and Premier Colin Barnett signed a clause with Gorgon's proponents, Chevron, Exxon Mobil and Shell, that if a carbon tax comes into play and the CO₂ leaks out the companies will not have to foot the bill.

8. Waterfront warrior John Coombs sails against wind

Graham Lloyd, Environment editor

From: The Australian November 27, 2010 12:00AM 17 comments

<http://www.theaustralian.com.au/national-affairs/waterfront-warrior-john-coombs-sails-against-wind/story-fn59niix-1225961755944>

Former maritime union secretary John Coombs on his property at Crookwell on the NSW southern tablelands. Picture: Vanessa Hunter *Source: The Australian*

JOHN Coombs, the former maritime union heavyweight who refused to let radioactive waste cross the nation's docks, has experienced a change of heart.

He reckons it's time Australia went nuclear. And that's the message he wants to send to the man who stood beside him during the waterfront dispute - former ACTU secretary, now Climate Change Minister, Greg Combet.

His conversion is part of a new world of climate change politics, in which unlikely alliances are being formed and long-held positions being revised.

Mr Coombs, long retired as national secretary of the Maritime Union of Australia, now finds himself in the same camp as ABC chairman and former Australian Securities Exchange chair Maurice Newman.

Both own property at Crookwell on the NSW southern tablelands, a couple of hours southwest of Sydney. And both have serious doubts about the wisdom of a planned explosion of wind-power developments in the area. "There is a view that wind power will turn out to be for electricity generation what the Zeppelin was for air transportation," Mr Newman said. "It looked promising but was not the answer."

The concerns expressed by Mr Coombs and Mr Newman mirror doubts being expressed in South Australia and southwest Victoria about the cost, efficiency, social impacts and health effects of the new-generation wind turbines that cost more than \$2 million each and are as tall as a 45-storey building with blades that take up more than 1ha of sky and create enough turbulence to tear apart any bird that strays too close. Since Australia's first large-scale wind turbine was installed at Breamlea, near Geelong in Victoria, in 1987, more than 1000 have sprung up in wind farms built in every state, with almost half in South Australia. Together they generate about 1.5 per cent of the nation's electricity needs - enough to power 770,000 homes. But there are plans for a multi-billion-dollar, 10-fold increase in the amount of power generated from wind as the federal government pursues a target of generating 20 per cent of our power needs from renewable resources by 2020 as part of its carbon reduction plans. It is estimated that about 40 per cent of the renewable energy target will come from wind.

Yet there is a growing tide of concern that Australia is tying too much of its energy future on a technology that is less efficient, less carbon-friendly and ultimately more expensive for consumers than alternative electricity sources, such as natural gas, coal-fired power with carbon capture and storage technology and nuclear.

Then there are the side-effects of wind turbines - their visual impact, the way they divide rural neighbours when a farm springs up on one property, their effect on wildlife and, potentially, on the health of nearby communities.

Family First senator Steve Fielding has established a Senate inquiry to investigate the health impacts of living near windmills, including concerns over noise and vibrations and the effect of rural wind farms on property values.

Submissions are rolling in and calls are growing for a re-evaluation of nuclear energy.

In Canberra this week, International Energy Agency executive director Nobuo Tanaka said it would be "very difficult" for Australia to meet its target of a 60 per cent cut in greenhouse gas emissions by 2050 if its gamble on carbon capture and storage - the burial of carbon emissions in deep underground reservoirs - failed and it did not have nuclear power as a back-up. His comments came as a review of international studies, published by Australian researchers in the

journal Energy, identified nuclear energy as the cheapest technology to help tackle global warming.

With the billions of dollars earmarked for wind power, which costs more than twice as much as electricity from coal or gas, Mr Coombs said the sensible thing was to consider nuclear energy.

"Of course if you were to mention me (politicians) could say, 'That bloke fought against nuclear waste going out of this country for 20 years', and I did.

"For 20 years I stopped any ship coming in to pick (nuclear waste) up because we refused to let it go to Third World countries.

"Politically, a lot of members were opposed to nuclear energy but it was a long time ago and I gave up the fight to try to stop the use of nuclear power in this country. Of course nuclear power is a reasonable thing to consider."

9. Gillard's energy cost arguments don't add up

Dennis Shanahan, Political editor

From: The Australian December 03, 2010 12:00AM 53 comments

<http://www.theaustralian.com.au/news/opinion/gillards-energy-cost-arguments-dont-add-up/story-e6frg6zo-1225964756523>

THE Prime Minister's anti-nuclear stance is straight out of the Greens play book.

THE ALP national conference is rapidly becoming the "too hard" basket for the Gillard government. Issues which threaten the fragile balance within the ranks of the federal ALP are being shunted off to Labor's policy governing body to be held at the end of next year.

As Labor examines its electoral entrails and tries to answer questions about where it stands on issues while being squeezed between the Greens, its own disgruntled conservative wing and Tony Abbott's hard-line Coalition, proffering topics for the conference has become an avoidance strategy. Labor has to decide what it does about key issues before the national conference in December 2011 or it will bleed over policy and politics.

One of those issues, which is not a "fringe issue", is nuclear energy and its impact on greenhouse gas emissions, energy security and power prices.

For Julia Gillard, nuclear power, like uranium mining, is one of the standard issues that can divide the ranks of the ALP and threaten party stability. But Gillard is going to have to sharpen her policy responses if she is not going to be accused of running the Greens' line on nuclear power and be caught short in sensible debate over the next 12 months.

After Labor MPs Stephen Hutchins, Mark Bishop and Martin Ferguson raised the question of the need for a debate on nuclear energy, Gillard was asked her views on nuclear energy.

She said: "The Labor Party's got a very clear policy, here, and it's a really long-standing policy of opposition to nuclear power.

"I want the Labor Party to be a party of debate and a party of ideas, so if people come to national conference saying 'I've got something to say', then I want them to have their say at national conference.

"I'd have to say anybody who's arguing to overturn our long-standing policy is setting themselves up for a pretty tough argument, but I'm not going to be there saying to people 'don't come and put your view'."

When asked her personal view she responded: "Look, in this country, as we look where we are today, nuclear power doesn't stack up as an economically efficient source of power for our nation. We're in a different situation from many nations that need nuclear power. We've got abundant sources of renewable energy."

In one go Gillard tried to put the argument off until next year, said Labor was basically anti-nuclear, signalled her belief any change "would be tough", argued that nuclear didn't stack up economically and we had "abundant renewable energy".

Her characterisation of Labor attitudes and the "tough battle" showed no sign of her wanting to

have a tough fight and her arguments against nuclear energy were straight out of the Greens play book.

As Greens' leader Bob Brown and Christine Milne made clear this week, the Greens' position is that the use of nuclear power would be expensive, dangerous, unnecessary and challenged its proponents to say where reactors would be built. The latter point was used by Labor with devastating effect in 2007 by running a nuclear-reactor-in-backyard campaign when John Howard tried to raise a nuclear debate.

Brown said "the spectre of nuclear power" was being raised by the "Murdoch-promoted Right in Australia" but stressed the cheapest way to reduce greenhouse gas emissions was to end the "destruction of Australia's forests and woodlands".

Greens spokesperson on nuclear issues, Scott Ludlam, cited a report from Mark Diesendorf, deputy director of the Institute of Environmental Studies at the University of NSW, that found that nuclear energy will be more expensive than most forms of renewable energy by 2020 when "offshore wind farms, solar thermal and solar photovoltaics are all projected to be less expensive than nuclear energy".

The Prime Minister's argument was less detailed and runs the risk of running the illogical argument that we need to put up the price of electricity to cut carbon emissions but can't use nuclear because it's too expensive.

Part of her problem is that in her own government, the department charged with putting facts and figures into the public domain which can be used in debate and for policy formulation takes a different view to that cited by the Greens.

Gillard argues that "where we are today" nuclear energy is not economically viable in Australia. This is true and it is also true that many of the hi-tech renewable energy sources, particularly wind, will become more economically viable. But the same is true of nuclear energy and its economic viability in the future, particularly if Gillard gets her way and imposes a carbon price through a tax or an emissions trading scheme to put up the price of carbon.

Last week, Gillard's own Department of Resources released its estimates of electricity generation costs in 2015 and 2030 across all energy sources. It defies logic to talk about the need to cut greenhouse gas emissions by 2050 - 40 years away - and the improved cost-efficiency of renewable energy sources 20 years away and not do the same with nuclear.

What Gillard doesn't seem to be aware of is that the Department of Resources projections, while confirming the improved efficiency of renewable energy sources, also shows nuclear energy in Australia will be economically viable compared to coal-fired power.

The government projections are that in 2015 the cost of nuclear power per megawatt hour will be between \$150 and \$200 compared to wind at \$110 to \$220 and black coal at \$80 to \$98. But in 2030, nuclear is \$110 to \$200, wind is \$98 to \$200 and black coal is \$100 to \$190 which makes both nuclear and wind competitive with coal-fired power.

And, that's not all. The projections do not include an extra carbon price on coal through either a carbon tax or an emissions trading scheme which are designed to push up the price of coal-fired power. What's more wind still can't provide baseload power, the key to modern life and economy.

Having used a nuclear scare campaign from Opposition, Gillard is going to have upgrade her arguments now that she's in government facing policy challenges into the decades ahead and not just at the Labor conference in 12 months.

10. Nuclear electricity 'worth investing in'

Lauren Wilson, Amos Aikman

From: The Australian December 02, 2010 12:00AM

<http://www.theaustralian.com.au/news/nation/nuclear-electricity-worth-investing-in/story-e6frg6nf-1225964142216>

NUCLEAR, combined-cycle gas turbine and wind power will provide the cheapest low-carbon electricity and are the most worthy investments.

A report by the Australian Academy of Technological Sciences and Engineering compared various means of generating low-carbon electricity, and found reducing greenhouse gas emissions would require a substantial rise in electricity prices and a carbon price that escalated over time.

Combined-cycle gas turbine generation would produce the cheapest electricity in 2020, solar would be the most expensive, and wind power would produce the cheapest low-carbon electricity in 2040.

Nuclear power plants were unlikely to be built by 2020, but nuclear power could be cost-competitive in 2030 and 2040, assuming Treasury's projected carbon price of \$US67 and \$US90 per ton of CO₂, respectively.

The report, launched yesterday by Energy Minister Martin Ferguson, comes as the ALP faces an internal debate over nuclear power, and the opposition calls for the Productivity Commission to investigate all renewable energy tariffs.

Opposition climate change spokesman Greg Hunt said the economic advisory body should examine whether the current state-based feed-in tariffs for solar and wind power ultimately pushed up the price of electricity.

Each state and territory government offers generous payments to households for wind and solar power that is fed into the power grid. The tariffs range from 60c per kWh in Victoria to 20c in Tasmania and NSW.

Mr Hunt told *The Australian* yesterday he was aware people were deeply concerned about power prices. "We want to find the least cost, most efficient means of reducing emissions," he said. "The Productivity Commission should look at whether feed-in tariffs are an effective way of reducing emissions and if so whether a single national regime would be a best way of delivering that."

The opposition's calls for a broad-brush productivity analysis of Australian programs came as Greens deputy leader Christine Milne called for feed-in tariffs for renewable energies to be streamlined across the nation.

"What the government needs to do is first and foremost introduce a national gross feed-in tariff for large-scale renewables," Senator Milne said.

11. Solution is nuclear power

Piers Akerman

From: The Daily Telegraph December 03, 2010 12:00AM

<http://www.dailytelegraph.com.au/nuclear-power-is-the-clear-solution/story-fn6bmfwf-1225964778408>

THE scientists are lining up to give Julia Gillard a thrashing over her nonsensical claims about the cost effectiveness of nuclear power. The Prime Minister is, according to leading environmental scientist Professor Barry Brook, either "talking through her hat or lying".

Professor Brook, who holds the Sir Hubert Wilkins Chair of Climate Change at the School of Earth and Environmental Sciences and is also director of Climate Science at the University of Adelaide's Environment Institute, is no stooge for any political party.

Nor is Australia's Chief Scientist Professor Penny Sackett, yet both she and Professor Brook are at loggerheads with Gillard over her decision to rule out any discussion of the role nuclear power may play in Australia's future.

"In this country nuclear power doesn't stack up as an economically efficient source of power for our nation," Gillard told Melbourne radio station 3AW on Wednesday morning.

Of course, she has absolutely no qualifications to give such a claim any credibility.

On the other hand there is Professor Brook, a climate change expert who has published three books as well as more than 170 refereed scientific papers.

He has also been honoured for his research excellence with numerous awards, including the Australian Academy of Science Fenner Medal.

(Incidentally, Professor Fenner -- who died last week -- helped to rid the world of smallpox and Australia of a rabbit plague).

Adding to Brook's authority, the professor was named the 2010 Community Science Educator of the Year for his public outreach activities.

Drawing on his serious scientific knowledge, Brook states unequivocally that "nuclear is the way to go".

In a recent paper written with lead author Martin Nicholson and Tom Biegler, Brook and his colleagues defined and identified technologies capable of delivering baseload electricity and reducing the so-called greenhouse gas emissions.

These gas emissions are what Gillard, her predecessor Kevin Rudd, and the ALP's Green partners in their mongrel minority coalition government are so concerned about.

But the scientific conclusion is so simple that one can only wonder who, if anybody, briefed Gillard before she made her stupendously stupid remarks.

After conducting an exhaustive meta-review of the technologies that are able to supply baseload electricity power in sufficient quantities to replace existing fossil fuel plants, taking in the possible costs of a carbon price, the scientists found the options "much more limited than is popularly perceived".

"An objective analysis of the data shows nuclear power to be the standout solution for low-emissions baseload electricity, in terms of cost and ability to meet the timetable for greenhouse gas abatement," they found.

And it gets better.

"Further, nuclear power's relative competitiveness increases as the carbon price rises," the authors wrote, in their paper published in the international peer-reviewed Energy magazine.

The abstract sums it up thus: "Nuclear energy is the cheapest option and best able to meet the Intergovernmental Panel on Climate Change timetable for greenhouse gas abatement.

"Solar thermal is the most expensive, while carbon capture and storage will require rapid major advances in technology to meet that timetable.

"Only nuclear power will keep the lights on, keep electricity costs down, and meet the long-term emissions targets," the authors say.

Brook is deeply perplexed by Gillard's inability to look for pragmatic solutions to the dilemma in which she finds herself. She, and the Labor Party, are committed to the notion of human-induced global warming.

On the other hand, they are hobbled by a totally hypocritical abhorrence of the use of nuclear energy in Australia despite the nation being one of the world's largest exporters of uranium.

Brook said he found that often "the most ignorant are the most sure of themselves".

"It is ridiculous for politicians to go hammering on about climate change in a vacuous or simplistic manner when they have not taken the time to think about it seriously."

Thinking about it seriously leads inevitably to one conclusion, difficult as Labor may find it to be.

"Nuclear power is the inconvenient solution," he said.

While Gillard has turned her back on the nuclear option, the chief scientist says Australia must look at a "suite of energy options in the face of an uncertain future".

"What we mustn't do is become fixated on asking can one particular energy solution solve all our problems -- the answer to that is almost certainly no," she said.

Brook sees nuclear power as the way to cut through the political divisions but says environmentalists are blocking the way.

"They can't see that nuclear energy provides a way to cut through the impasse and deliver multiple benefits," he said.

Gillard is wedded to global warming, as is evident by her appointment of a climate change

committee open only to MPs who are "committed to tackling climate change".

Non-believers need not bother applying.

The door is firmly closed to the parliament's only PhD scientist, Dr Dennis Jensen, though his expertise would be of benefit.

Economic reality, he says, now means that nuclear power is competitive with other methods of power generation in Australia, just as it is in the US, South Africa and other nations that have abundant and inexpensive coal.

"The only thing counting against it is a nonsensical ban on generating power using nuclear energy," he said yesterday.

He called for the legislative bars to the nuclear industry to be lifted, citing the state Acts in Victoria, Queensland and NSW which forbid the construction or operation of nuclear facilities for enrichment, power generation or reprocessing, and section 10 of the Commonwealth Australian Radiation Protection and Nuclear Safety Act 1998, which explicitly excludes licences for enrichment, power generation or reprocessing of nuclear fuels, restricting the use of reactors solely to research or for making radiological materials.

Gillard has exposed her own woeful ignorance about nuclear energy. Whether she has done this solely to placate her equally foolish independent and Greens partners or not, it is a particularly dumb look.

But worse, in denying Australians access to cheap, coal-powered electricity and to the possibility of cleaner nuclear power, Gillard is destroying the economic heart of the nation.

12. Nuclear debate heats up in ALP

By Paul Osborne, AAP

December 1, 2010, 12:14 pm

<http://au.news.yahoo.com/thewest/a/-/breaking/8427098/pm-treasurer-say-no-to-nuclear-power/>

A new report showing nuclear power could become financially viable in Australia within 20 years has reignited debate in the ALP over the party's nuclear ban.

But Prime Minister Julia Gillard and Treasurer Wayne Swan have been quick to play down the chances of Labor changing its policy at next year's national conference.

The Australian Academy of Technological Sciences and Engineering report, which canvasses low-carbon energy options, says nuclear power could be a viable option after the government reaches an agreement on a carbon price mechanism.

Report author Dr John Burgess said nuclear power had two key benefits - it produced continuous output and had no carbon emissions.

"So compared to some of the other technologies it looks quite favourable financially at that time when the carbon price is climbing up to \$80 a tonne in about 2030," Dr Burgess told ABC radio.

A number of Labor MPs and senators have seized on the report and want the ALP's national conference to overturn the ban.

Ms Gillard said she remained opposed to nuclear power, adding anyone who would argue to scrap Labor's longstanding policy "is setting themselves up for a pretty tough argument".

"In this country ... nuclear power doesn't stack up as an economically efficient source of power for our nation," she said.

NSW Labor powerbroker Steve Hutchins said the party should keep an open mind on the issue.

"I would think people would ask us to consider all forms of alternative energy to make sure that we can continue to turn on our lights and make sure we have industry to work at," he said.

Australian Greens leader Bob Brown said nuclear power was too expensive and would be damaging to the environment.

He challenged Senator Hutchins to nominate proposed locations for a nuclear power plant in his

home state of NSW.

Treasurer Wayne Swan told reporters in Canberra he did not think nuclear power would be viable even if a price were put on carbon.

"I'm not a great supporter of it at all - never have been," he said.

He said Australia had an "incredible supply" of traditional energy sources, such as coal and gas, and renewable energy.

Energy Minister Martin Ferguson said having a debate at the party conference would be "healthy" for the ALP.

But he said nuclear power remained commercially unviable.

Opposition Leader Tony Abbott has argued nuclear power is part of the solution to global warming and makes sense given that Australia has 40 per cent of the world's readily exploitable reserves of uranium.

He said Labor was set to tear itself apart with factional infighting over the issue.

"I think it's very interesting that just as the left of the Labor party have put gay marriage on the agenda for Labor's conference next year, elements of the right of the Labor Party have now hit back by putting nuclear power up on the agenda," he told journalists in Sydney.

Asked by reporters on Wednesday about the coalition's current view on nuclear power, opposition environment spokesman Greg Hunt said: "We don't have a philosophical objection to it."

Meanwhile, the preliminary results of a survey of 1,175 people on climate change found 28 per cent in favour of nuclear power, 30 per cent opposed and 30 per cent unsure.

The Macquarie University study also found 56 per cent of people needed more information to make a decision.

It cited the top three ways to tackle climate change as expanding use of renewable energy, making better use of energy-efficient technology, and reducing energy consumption.

13. GEOFFREY LEAN MEXICO 2010 COP16

Geoffrey Lean: Cancun climate change talks: 'last chance' in the snakepit

Monday, November 29th 2010, 1:24 PM EST

<http://climaterrealists.com/index.php?id=6739&linkbox=true&position=20>

As climate-change talks get under way, negotiators are filled with a sense of foreboding.

Maybe the name has something to do with it – Cancun means “nest of serpents” in the original Indian language of the area – but it would have been hard to pick a less propitious place to host a conference widely hailed as the last chance to get international negotiations to combat climate change back on track.

For this Mexican resort has an unrivalled record in consigning such talks to the compost heap of history. In 1981 it was here, at one of Ronald Reagan's first summits, that global negotiations on tackling world poverty went off the rails, even if it was the intransigence of developing countries rather than the old ham himself that was to blame. Beside these same azure seas 20 years later, the current round of world trade talks went awry and have yet to recover.

A sense of foreboding is one of the few points of general agreement among the 15,000 participants congregating for the next two weeks on this long thin strip of land, marooned between a wide lagoon and the Caribbean Sea. Jairem Ramesh, the Indian environment minister, sees it as the “last chance” for climate change talks to succeed; Connie Hedegaard, the EU's climate chief, believes a disappointing outcome would “put the whole process in danger”; and American and Canadian politicians are thinking of moving negotiations to other, more selective, meeting places. No wonder Chris Huhne, the Energy and Climate Change Secretary, says that Britain's main goal over the next two weeks will be “keeping the show on the road”.

14. Cancun climate change summit: 2010 was hottest year on record

It might be hard to believe with the snow falling outside but 2010 was globally the hottest year on record, according to the Met Office.

By Louise Gray, Environment Correspondent in Cancun 5:30PM GMT 02 Dec 2010

<http://www.telegraph.co.uk/topics/weather/8175591/Cancun-climate-change-summit-2010-was-hottest-year-on-record.html>

Despite the coldest start to the year in Britain for 30 years and the recent freeze, the world as a whole has been 0.94F (0.52C) warmer than the 30 year average of 57.2F (14C).

The national weather service said it was equal with 1998, when an El Nino in the Pacific made the world warmer.

This time the weather pattern in the southern oceans has actually cooled the world, meaning the high temperatures are more likely than ever to be as a result of man made global warming.

The cooling pattern known as La Nina will increase into next year making it slightly cooler than recent years.

But again, because the level of global warming is so high, 2011 is still expected to be warmer than average.

The provisional figures, released at the latest United Nations climate change talks in Cancun, are backed up by the US national weather service and Nasa.

The Met Office figures estimate 2010 has been 0.94F (0.52C) hotter than the 57.2F (14C) average from 1961 to 1990. Only 1998 was this hot followed by 2005.

The World Meteorological Organisation said the world was 0.99F (0.55C) hotter in 2010, making it the hottest year since records began in 1850, although there are regional variations. The UK has had its coldest year since 2010. The fastest warming has been in the Arctic, Africa and Southern Asia, while northern Europe, America and Asia have all had cooler years.

The last decade has been on average 0.79F (0.46C) hotter, with most years in the top ten hottest year.

However next year is expected to be just 0.82F (0.44C) hotter.

Dr Adam Scaife, head of long range forecasting at the Met Office, said the predictions are usually correct within 0.1F (0.06C).

He said they show the world is warming and could jump up even more if there is another strong El Nino.

"The three leading global temperature datasets show that, so far, 2010 is clearly warmer than 2009. This is despite El Niño declining and being replaced by a very strong La Niña, which has a cooling effect."

Dr Vicky Pope, the Met Office's head of climate science advice, explained that the cold weather in Britain is compatible with the warming pattern as regions of the world can experience different weather patterns.

She said the overall pattern for the UK is still warmer winters.

"Our annual prediction of global temperatures for the next year combined with our monitoring of the observed climate helps people to put the world's current climate into context," she said.

15. Warming 'will be twice the safe high'

Ben Webster, Cancun From: The Australian November 30, 2010 12:00AM

<http://www.theaustralian.com.au/news/world/warming-will-be-twice-the-safe-high/story-e6frg6so-1225962948545>

THE world must start preparing for a temperature rise of double the maximum deemed safe.

This is because there is very little chance of a global deal on emissions being agreed in time,

according to British scientists.

But global spending of up to pound stg. 173 billion (\$280.2bn) - just 0.02 per cent of world GDP - on building dykes and replenishing eroded beaches could reduce the number of people potentially displaced by sea-level rise from 187 million to about 300,000.

Researchers at the British Met Office and the University of Southampton calculated that forecast sea-level rises of 50cm to 2m by 2100 would displace tens of millions of people from low-lying areas.

Although it would be uneconomic to protect thousands of small islands, their proposed building program would reduce the number of displaced people to 305,000.

"The problem of environmental refugees almost disappears," their paper concludes.

The announcement comes as an international panel of scientists has warned that the world must start preparing for a temperature rise of double the maximum deemed safe because there is little chance of a global deal on emissions being agreed in time.

Unless work begins now on planning thousands of kilometres of dykes, sea levels will rise by up to 2m and displace 190 million people.

Production of food crops in sub-Saharan Africa could fall by up to 70 per cent, as water shortages double the rate of crop failures in some regions to once every two years.

The findings were released yesterday to coincide with the opening of the UN climate change conference in Cancun, Mexico.

The scientists conclude that there is "little to no chance" of adhering to the target set in the non-binding Copenhagen Accord of keeping the global temperature increase to below 2C above pre-industrial levels. The temperature has already risen this century by 0.7C.

An increase of 3C or 4C is more likely and the rate of warming is likely to accelerate. Amplified by strong "feedbacks" such as warmer oceans absorbing less carbon dioxide from the atmosphere, temperatures could rise by 4C by the 2060s.

Mark New, of the University of Oxford's School of Geography, said: "Even with strong political will, the chances of shifting the global energy system fast enough to avoid 2C are slim. Trajectories that result in eventual temperature rises of 3C or 4C are much more likely."

A combination of melting polar ice sheets and thermal expansion of the oceans would cause sea levels to rise by 50cm to 2m by 2100.

The Times

16. Change in climate for Copenhagen II

Fergus Green and Greg Picker

From: The Australian November 29, 2010 12:00AM

<http://www.theaustralian.com.au/news/world/change-in-climate-for-copenhagen-ii/story-e6frg6so-1225962338200>

REMEMBER Copenhagen?

When a cast of tens of thousands - world leaders, government officials, activists, industrialists and journalists - from around the globe descended on the Danish capital in a bid to agree to a new treaty on climate change?

That was a year ago, and it's now time for them to do it all again - albeit with a much smaller cast.

Don't be too concerned if you haven't heard about Cancun in the way you heard about Copenhagen. Compared with last year's hype, political and media attention on this week's conference has been decidedly muted.

There are two good reasons for that. First, interested parties and the media are still suffering from a collective Copenhagen hangover.

Governments and civil society groups put so much time and energy into making Copenhagen a

success, and everyone spent the fortnight of the conference high on the thrill of a potential agreement (not to mention caffeine).

The crushing realisation that much of that work came to little compounded participants' natural post-conference doldrums, resulting in a slow and painful recovery period. Few had the stamina to get excited about a repeat.

The second reason Cancun hasn't featured as prominently is the lack of progress in negotiations. In the handful of smaller UN climate negotiations held throughout the year, there have been few signs the parties are eager to put aside their differences and reach a compromise - let alone do what the science implies is necessary.

Parties have retreated to long-held positions, continuing to squabble over everything from emissions reduction targets to the institutional design of a committee to spur clean technology transfers to developing countries.

In fact, much of the discussion has focused on technical minutiae rather than big political issues, and even then consensus has been hard to come by.

The upshot is - unlike at Copenhagen - no one expects a comprehensive agreement in Cancun. Hopeful observers would like to see progress on some issues, such as deforestation and the deployment of money for developing countries that was promised in Copenhagen. Others would be happy if the talks just sent a clear signal that negotiations would continue towards a binding agreement in coming years.

Others still offer the hope that a comprehensive treaty can be agreed at the next conference in South Africa next year - the same people who hoped we'd have agreement in Copenhagen last year and then in Cancun this year.

At some point, governments must face up to the structural flaws in the process: the agenda is too wide, the parties are too numerous and the procedures - which require agreement among 194 countries to do so much as remove a comma - are so cumbersome it is hard to imagine transformative action on climate change can emerge in this forum.

As we explained in a paper with Warwick McKibbin produced for the Lowy Institute in July, the world's major emitters must start to co-operate on cutting emissions in other international groupings such as the Major Economies Forum, while negotiations continue through the UN.

We also argued that alternative policy models, such as one based on harmonised rising carbon prices (or carbon-price-equivalent policies), are more likely to foster international co-operation and send clear policy signals than negotiations over targets and timetables.

Even in the absence of international agreement, it makes sense for countries to take steps to curb emissions. Many countries - such as China, South Korea and Brazil - are making large strides in cutting carbon and finding that doing so has other benefits, such as reduced dependence on fossil fuel imports, growing clean-energy industries, saving money by using energy more efficiently, powering remote communities with distributed renewable energy, and cleaner air with lower health costs from reducing local air pollutants.

As Nobel prize-winning economist Elinor Ostrom argues, a "polycentric" approach to cutting emissions, involving experimentation with different approaches at different levels of governance, is more likely to lead to the emergence of successful governance frameworks and policies that can be replicated by others.

As Australian officials depart for Cancun, they'd do well to remember that endless UN negotiations are not the only path to effective climate action. It's time to start thinking outside the UN box, while continuing to work within it.

Fergus Green and Greg Picker are the co-authors of two papers on international climate policy for the Lowy Institute - most recently [Confronting the Crisis of International Climate Policy: Rethinking the Framework for Cutting Emissions](#), available from www.lowy.institute.org

17. No hope for climate talks, says Britain's chief scientist John Beddington

Jonathan Leake and Ben Webster

From: The Australian November 29, 2010 12:00AM

<http://www.theaustralian.com.au/news/world/no-hope-for-climate-talks-says-chief-scientist-john-beddington/story-e6frg6so-1225962362751>

BRITAIN'S chief scientist has dismissed hopes for a deal at the UN climate change conference starting today in Cancun, Mexico.

And, says John Beddington, people should start preparing for a warmer world.

Beddington told The Sunday Times there was "very little chance of reaching a comprehensive agreement in Cancun" and it was unwise to think the UN would achieve its target of limiting global temperature rises to 2C.

"We have to focus on adaptation to climate change," he said. "It would be very unwise to think that the 2C goal will happen."

Sir John warned that Britain and Europe could not continue to take action on emissions alone without putting themselves at a competitive disadvantage.

But a former UN climate chief believes a "coalition of the willing" among the major economies can break the deadlock.

Yvo de Boer told The Times that countries willing to cut emissions should not wait for the US to act but join forces with like-minded nations, and said Europe and China were already discussing linking their emissions trading schemes.

"There is no need for us to sit and wait until the very last person has agreed. Groups of countries coming together and beginning to act is a fantastic way of moving the process forward," he said.

The Dutchman, who resigned in July as executive secretary of the UN Framework Convention on Climate Change, said the US had fallen behind China in enacting its pledge on emissions. "China is further in actually translating its commitment into national policy," he said.

Climate scientists say the world has already warmed by about 0.7C since pre-industrial times. The Cancun talks, which will last for two weeks with an estimated 10,000 participants, are aimed at achieving an agreement that will limit further rises to no more than 1.3C.

That would mean reducing annual carbon dioxide emissions to the equivalent of 22 billion tonnes by 2050 -- compared with 56 billion tonnes emitted now.

Michael Grubb, a member of the British government's advisory body on emissions, endorsed the idea of a coalition. "In carbon terms, this would be a coalition of the progressive world. In addition to Europe, we would need China or India plus Brazil or South Africa and either South Korea or Japan," he said.

"There has to be some glue to hold the coalition together. The glue would have to involve some form of co-operation on carbon pricing, trade and financial measures."

Sir John stressed the wider global context. "It's not just climate change," he said. "There is also a demographic boom, with world population rising by 70 million a year. We have got major issues with food security interacting with climate change.

"Extreme weather events, such as the fires in Russia and floods in Pakistan, could become more frequent. And we have rising and more wealthy populations. All these things are interrelated and you ignore any of them at your peril."

The Times/The Sunday Times

18. Nuclear power more attractive as climate changes

Deanne K. Bird, Katharine Haynes, Robert van den Honert and John McAneney

From:

The Australian December 03, 2010 12:00AM

<http://www.theaustralian.com.au/news/opinion/nuclear-power-more-attractive-as-climate-changes/story-e6frg6zo-1225964759590>

A THIRD of Australians support reactors, a third oppose and a third are undecided.

THIS week Julia Gillard has been under pressure to put nuclear power on next year's ALP policy agenda. As some prominent environmental scientists advocate the use of nuclear energy as one means of combating greenhouse gas emissions, many other countries are signalling their intentions to expand their nuclear industries.

In this country, however, there has been a marked lack of public debate on the possible role of nuclear energy. This is curious given Australia is a big exporter of uranium and possesses some of the most geologically stable landscapes on the planet.

In the absence of an in-depth political discussion, scientists at Macquarie University's independent research centre, Risk Frontiers, investigated the public's view on this issue.

In April, 1175 people, aged 18 and older, and living in country and city areas in all states, were surveyed as to their attitudes to nuclear power in the context of climate change and energy security. The key results are:

I People who are interested in climate change also have an interest in nuclear power.

I There is no statistical difference in the proportion of respondents who supported (28 per cent) and opposed (30 per cent) nuclear power. Interestingly, however, there is a significant proportion of people (30 per cent) who remain undecided. ((See graphic.)

I Most (56 per cent) respondents agreed that they needed more information to form a clear opinion about nuclear power, while a further 25 per cent were unsure, had no opinion or didn't know.

I Respondents believed the best three ways to tackle climate change were by expanding the use of renewable energy sources (for example, solar and wind), expanding the use of energy-efficient technologies and changing people's behaviour to reduce energy consumption.

Also, respondents preferred the use of nuclear power rather than continuing to exploit fossil fuels, even with carbon capture technologies, or reducing energy consumption through regulation and taxes.

I Finally, more people agree (49 per cent) than disagree (36 per cent) that they are willing to accept the building of nuclear power stations if it would help to tackle global climate change or improve energy security.

The survey results suggest that as the debate over how best to combat climate change continues, more people are likely to become interested in nuclear power.

At present, Australians would prefer renewable energy sources over the nuclear option, but seem likely to accept the building of nuclear power stations if it will help tackle climate change and improve energy security (that is, affordability and reliability).

However, more education and public discussion is needed to help people develop clear positions about where they stand on nuclear power.

Our results are similar to the situation in Britain, where the public is prepared to reconsider its stance on the expansion of nuclear power when it was reframed as a mitigation measure against climate change.

Researchers at Cardiff University also found that the majority of respondents considered nuclear energy as one of a suite of energy sources needed to ensure a reliable supply of electricity.

The authors are researchers at Risk Frontiers, Macquarie University. For more information:
haynes.katharine@gmail.com

19 Keep dams on water agenda: PM's report

Amos Aikman

From: The Australian December 03, 2010 12:00AM

<http://www.theaustralian.com.au/national-affairs/keep-dams-on-water-agenda-pms-report/story-fn59niix-1225964783649>

DAM-BUILDING should remain on the national agenda, according to a report by the Chief Scientist.

The report -- commissioned by the Prime Minister's Science, Engineering and Innovation Council and prepared by Penny Sackett -- found that water, energy and carbon emissions need a new, federally co-ordinated regulation system.

The report viewed energy, water and greenhouse gas emissions as finite resources and found that treating one resource independently could harm the others.

Professor Sackett said the report, released on Tuesday, emphasised the way water required energy to distribute it, and energy might, in turn, require water to produce.

"What this report says is that part of the thinking is not just to ask how much water will be delivered, but how much energy will be required to deliver that water and what the greenhouse gas consequences will be," Professor Sackett said.

Dams have traditionally provided Australia's lowest-carbon water source. Desalination, waste-water recycling and piping water over long distances are all typically much more energy-intensive.

Water industry leaders said the report showed why dam building should not be stopped. Their comments follow the successive cancellations of two major dam projects.

The executive director of the Water Services Association of Australia, Ross Young, said: "The great benefit of dams is that they are a cheap source of water and a great low-carbon source. However, the community sees that the footprint of the dam is too environmentally unacceptable these days."

The NSW government axed its planned \$477 Tillegra dam in the NSW Hunter Valley last weekend in the wake of persistent community opposition and campaigning by green groups.

Queensland's Traveston dam was scrapped last year by then environment minister Peter Garrett, who cited claims the project would damage the habitats of several endangered species.

Desalination plants currently operate in Sydney and Perth and on the Gold Coast, and are under construction in Melbourne, Adelaide and Perth.

Mr Young said there was some irony in low-carbon water sources being scrapped due to pressure from environmentalists.

"As the whole carbon economy and the constraint that places on things becomes better known, maybe dams will make a comeback," he said.

"It's not in Australia's long-term interest to have dam building taken off the agenda."

Professor Sackett agreed that dam building should continue.

"There's no suggestion that dams should be taken off the agenda," she said.

But she also argued that dam building was not the only solution to Australia's water needs.

Professor Sackett said it was not clear to her that energy, water and carbon budgets were being considered concurrently.

"It's not even clear that the data is being collected to allow those decisions to be made," she said.

20. Warmest decade shows the heat's on

From:AFP December 04, 2010 12:00AM

<http://www.theaustralian.com.au/news/world/warmest-decade-shows-the-heats-on/story-e6frg6so-1225965383716>

THE year 2010 will be one of the warmest ever, climaxing a record-breaking decade, according to the UN's World Meteorological Organisation.

WMO secretary-general Michel Jarraud told a press conference on the fourth day of the UN climate summit in Mexico yesterday: "2010 is almost certain to be in the top three warmest years

on record The decade from 2001 to 2010 has set a new record; it will be the warmest decade ever since we have records."

Mr Jarraud said he hoped the provisional assessment - a consensus of temperature data from four meteorological institutions - would guide policymakers negotiating a post-2012 pact on global warming.

"Of course, if nothing is done, this curve will go on increasing and increasing," he said.

Only 1998 and 2005 had been warmer since records began in 1850, and only marginally so.

The benchmark for warming is 14C, comprising the global combined surface temperatures of the air and sea from 1961 to 1990. In 1998, temperatures were 0.53C above that level, and 2005 exceeded it by 0.52C.

From 2001 to 2010, global temperatures have averaged 0.46C above the 1961-1990 yardstick.

The figures do not by themselves pin the cause on man-made greenhouse gases, although this was confirmed by other research into concentrations of carbon emissions in the atmosphere, Mr Jarraud said.

The report said an unprecedented heatwave in Russia, in which about 11,000 people died, was linked to monsoon flooding in Pakistan that affected millions.

The Rio Negro, a major tributary to the Amazon, plunged to its lowest level on record, while Arctic sea ice in the northern summer reached its third lowest ever.

Another report presented to the summit found that carbon emissions from fossil fuels may affect marine environment worse than thought, with impacts on reproduction, biodiversity richness and fisheries.

Each year, billions of tonnes of carbon dioxide are absorbed by the sea and are very gradually turning the water more acidic, said the study, launched by the UN Environment Program.

Rising acidity affects calcium-based lifeforms, ranging from tiny organisms called pteropods that are the primary food source, to crabs, fish, lobsters and coral.

"We are seeing an overall negative impact from ocean acidification directly on organisms and on some key ecosystems that help provide food for billions," said Carol Turley, a senior scientist at Britain's Ocean Acidification Research Program, who headed the report.

"We need to start thinking about the risk to food security."

AFP

21. Let's lift nonsensical nuclear power ban

By Dennis Jensen |

December 6th, 2010, 12:07 pm

<http://au.news.yahoo.com/thewest/opinion/post/-/blog/theburningissue/post/1771/comment/1>

The politics of fear all too often override good policy and the desire of the majority of the community. The nuclear debate is a classic example of this.

I led the debate with a speech to Federal Parliament in March 2005, advocating at the very least critical examination of the merits of nuclear-generated power. This led to an almighty fear campaign in the 2007 election, where voters were threatened with a supposed coalition plan to build a nuclear power station somewhere near you.

In that period I was misrepresented in the media as saying I would be happy to have one built in my electorate of Tangney.

This is ludicrous - there is nowhere within my electorate that would meet the requirements of a nuclear power station.

The result was fewer than 10 negative communications and one person who protested outside my office in an anti-nuclear "suit".

In fact McNair Ingenuity research between 1979 and 2009 shows support for nuclear power

increasing from 34 per cent to 49 per cent in favour of the construction of nuclear power stations, with about 10 per cent undecided.

More people are in favour of nuclear power than opposed.

We continue to get scaremongering despite critical power generation infrastructure issues. The generators are reluctant to make a decision on what sort of power station to build without knowing the outcome of the carbon dioxide debate.

Prime Minister Julia Gillard asserts that a carbon price is needed to provide certainty but a decision not to tax carbon would obviously also provide this certainty.

There is stasis on the construction of power stations, because a price on carbon would favour gas, whereas no price would favour coal.

Nuclear power would get past this impasse. Nuclear power is the least carbon intensive, not that I am arguing on the basis of carbon dioxide mitigation as a reason for nuclear power, never have and most likely never will.

The fact is, a nuclear decision can be made regardless of the policy framework on carbon.

Former Telstra boss Ziggy Switkowski conducted a study about four years ago into the economics of nuclear power.

He found nuclear would only be competitive with coal with a \$30 a tonne price on carbon.

However, power prices have shifted significantly since then, and are now more closely aligned with economic reality.

This hurts householders, but the reality is similar to that in the US, South Africa and other markets with abundant cheap coal - nuclear is competitive with any other method of power generation.

The only thing counting against it is a nonsensical ban on generating power using nuclear energy.

Labor and the Greens cannot continue to say anthropogenic global warming is the most important issue to confront our society, but then say that the one method capable of making a massive dent in carbon emissions should have a legislative ban associated with it.

They also cannot continue to argue for this ban as it is "economically too expensive". If they really believe this, they would allow a repeal of Section 10 of the Australian Radiation Protection and Nuclear Safety Act 1998, knowing power generators would not build a nuclear power plant if it was economically uncompetitive.

I applaud those in the labour movement who have had the courage of their convictions to look beyond the petty party politics and declare that the nuclear option should be a tool in our electricity generators' toolkits.

Let's ensure we do what's best for the nation and not hamstring one of our most important industries for the simple expedient of gaining votes using the politics of fear.

I am working to streamline some of the legislation governing nuclear issues. At the moment there is a miscellany of State and Federal Government jurisdictions.

Each State has an Act that deals with safety of radioactive materials.

Victoria, Queensland and NSW also have Acts that forbid the construction or operation of nuclear facilities for enrichment, power generation or reprocessing.

But this doesn't prevent the development of a Commonwealth facility on Commonwealth land.

It is hard to imagine that any such reactor could be built without much of the building standards and operating safeguards being set out in legislation but this is something we will have to look at in the near future.

My reform will only seek remove this impediment to nuclear development and nothing more.

If this jump-starts a national debate, then so be it. To simply keep a ban in place based on old fears is bad policy.

Dennis Jensen is the Federal Liberal member for the WA seat of Tangney

22. Carbon fight eyes 'taboo' science of geo-engineering

From: The Australian December 06, 2010 12:00AM

<http://www.theaustralian.com.au/news/world/carbon-fight-eyes-taboo-science-of-geo-engineering/story-e6frg6so-1225966004900>

DESPAIR since Copenhagen has prompted governments to step up research into a climate strategy of last resort: geo-engineering.

The controversial field - until recently regarded as fringe or even taboo in climate circles - includes radical planet-altering proposals such as polluting the skies with particles or mirrors to reflect sunlight and filling the oceans with gas-eating plankton.

"The taboo is broken," said Nobel Prize-winning atmospheric scientist Paul Crutzen, author of a scientific article that sparked interest in geo-engineering in 2006.

But such proposals raise more questions among environmentalists than they answer. "This is really a risky, dangerous option," said environmentalist Silvia Ribeiro, in Cancun for the two-week negotiating session of parties to the 193-nation UN climate treaty.

Scientists have in the past proposed using aircraft, balloons or big guns to spread sulphate particles in the lower stratosphere to reflect sunlight. Others have suggested putting gargantuan mirrors into orbit. A German experiment tried seeding the ocean with iron, a nutrient that would spur the spread of plankton, which absorb atmospheric CO₂.

Other plans include spraying ocean clouds with sea salt to make them brighter and more reflective; planting vast arid lands with agave, the "tequila plant", which stores carbon for years and grows where climate-friendly forests can't; and developing the chemistry and machines to suck in CO₂ from the air and store it.

Specialists regard the stratospheric sulphates proposal as among the most feasible. The US government's National Centre for Atmospheric Research has undertaken computer modelling to assess its effect, for one thing, on the protective ozone layer.

The centre is also researching the brightening of maritime stratocumulus clouds with seawater droplets. The centre's John Latham, a British physicist, has drawn up plans for a field trial, and funding may not be far off.

In September, the US government Accountability Office recommended in a 70-page report that the White House "establish a clear strategy for geo-engineering research" within its science office.

A month later, a report from congressman Bart Gordon, a Democrat from Tennessee who chairs the house science and technology committee, urged consideration of climate engineering research "as soon as possible".

The US panel had collaborated in its study with a British House of Commons committee, which reported that geo-engineering might be needed as a Plan B.

Perhaps most significantly, the UN-sponsored Intergovernmental Panel on Climate Change has agreed to take on geo-engineering in its next assessment report.

"You have to understand its potential. We also have to understand the downside," IPCC Chairman Rajendra Pachauri said.

Britain's Royal Society warned last year that the biggest challenges would not be in the science or engineering, but "the social, ethical, legal and political issues associated with governance".

AP

23. APS Responds to Member's Resignation over Climate Change

<http://www.aps.org/publications/apsnews/201011/memberresigns.cfm>

In early October, a long-time member of APS, Hal Lewis, publicly resigned from the Society over issues having to do with climate change. Lewis, who is an emeritus professor at UC Santa Barbara, addressed his letter of resignation to APS President Curtis Callan, simultaneously

circulating it on the Internet. In response to some of the points in Lewis's letter, APS issued a statement that can be found on the press-release page of the APS website. Callan also sent a personal reply to Lewis in which he expressed his regret at Lewis's decision, along with his strong disagreement with the substance of Lewis's complaints against the APS. □□ Lewis's specific complaints focus on the recent decisions of the APS Council concerning the 2007 Statement on Climate Change and the ongoing process of formation of a topical group on the physics of climate. Characterizing recent APS decisions, Lewis contends that "It is of course, the global warming scam, with the (literally) trillions of dollars driving it, that has corrupted so many scientists, and has carried APS before it like a rogue wave. It is the greatest and most successful pseudoscientific fraud I have seen in my long life as a physicist." Concerning the topical group, Lewis claimed that the petition for creating such a group which he had signed had been arbitrarily rejected by "APS HQ". □□ The APS press release rejected Lewis's characterization of the state of the science, stating:

"On the matter of global climate change, APS notes that virtually all reputable scientists agree with the following observations: carbon dioxide is increasing in the presence in the atmosphere contributes to global warming; ... On these matters, APS judges the science to be quite clear. .. In light of the significant settled aspects of the science, APS totally rejects Dr. Lewis's claim that global warming is a 'scam' and a 'pseudoscientific fraud'."

In his letter, Lewis speculated that Council's policy positions on climate change must be driven by financial interest, adding that Callan's own physics department "would lose millions a year if the global warming bubble burst". The APS press release categorically rejected the notion that APS as an organization is benefitting financially from climate change funding and further pointed out that the vast majority of the Society's members do not work on climate and derive no personal benefit from such research support.

Callan, in his reply, criticized Lewis's speculation about the role of financial interest in determining the attitude of physicists to climate change as unacceptably disrespectful of the intellectual integrity of his scientific colleagues. He also noted that Lewis's statement about the reliance of Callan's department on climate science funding was wrong, as the actual level of such funding was precisely zero.

In his letter to Lewis, Callan also addressed the issue of the formation of the new topical group, explaining that, far from being rejected, the proposal for a topical group focusing on the physics of climate had met with enthusiastic acceptance and was being implemented (see [October APS News](#)). Callan closed his letter by saying that, while he respected Lewis's decision to resign, it was a pity that, by doing so, he was cutting himself off from participating in the very APS initiative he had called for.

24. Treading carefully at Cancun

Graham Lloyd, Environment editor

From: The Australian December 07, 2010 12:00AM

<http://www.theaustralian.com.au/news/features/treading-carefully-at-cancun/story-e6frg6z6-1225966626568>

THE lessons of Copenhagen have been learned and big promises are off the agenda.

AFTER the crashed hopes of Copenhagen, a much reduced contingent of climate change negotiators and their non-government entourage has flocked to the Mexican beach resort city of Cancun to continue the push for global action.

The protesters are still there but the hype of Copenhagen is missing.

Unlike Copenhagen, there is little if any expectation at Cancun that a global agreement to cut greenhouse gas emissions can be reached.

For many, the best outcome will be if the countries represented can agree to keep the discussions for a post-Kyoto agreement alive so they can continue in South Africa next year.

There has already been a hiccup, with Japan rejecting calls by the European Union for the Kyoto Protocol, which is due to expire at the end of 2012, to be extended.

Japan argues the protocol is unfair because it makes no demands of developing nations such as China, the world's biggest carbon emitter, or the US, which is in second place.

Like Copenhagen, the big challenge for Cancun revolves around finding a way to bring together the differing positions of the developed and developing countries.

The diplomatic language at Cancun revolves around managed progress to achieve a set of balanced outcomes.

The lesson from Copenhagen, where the disappointment of failing to reach consensus for a post-Kyoto agreement was magnified by the heightened expectations that there would be one, has been learned.

Politically, the big mistake was to over-promise and under-deliver.

In Cancun, things have been reversed. Negotiators are anxious to under-promise so that any progress can be claimed as a victory.

Welcoming senior politicians from across the world, Cancun conference president Patricia Espinosa said one week into the Cancun negotiations that conditions were in place to reach a "broad and balanced package of decisions" that would lead to an era of increasingly effective global action on climate change.

"However, the positive outcome our societies demand is still not complete," she said.

So, after a week of preliminaries, the business end of proceedings is about to begin.

Australia's Climate Change Minister Greg Combet has arrived in Cancun with a small team of senior advisers.

It is a far cry from Copenhagen, which was attended by then prime minister Kevin Rudd, several federal ministers and a slew of delegates from state governments as well as non-governmental organisations.

The atmosphere also reflects the more sober appraisal of many within the scientific community following a year of scandals over leaked emails and inclusion of inappropriate research in the most recent UN Intergovernmental Panel on Climate Change report.

A new study by a group of Britain's leading climate science institutions, released at Cancun yesterday, has confirmed the likely effect of global warming.

It says that while apocalyptic claims about the slowing down of the Gulf Stream has been exaggerated, some risks posed by a warming climate are greater than has been stated by the IPCC..

The review by the Met Office, the Grantham Institute for Climate Change at Imperial College London and the Tyndall Centre for Climate Change Research concludes: "There is overwhelming agreement on the fundamentals: that our climate is changing and this represents a real and urgent problem."

It is in this context that a draft agreement circulated at Cancun has called for a review of whether the goal should be strengthened to 1.5C in the light of warnings by scientists that the world faces growing natural disasters and extinction of species because of climate change.

At this point, Australia will consider Cancun a success if it is able to preserve its reputation as an honest broker in global negotiations with lines of communication to the US and China.

Diplomatically, Australia supports a global agreement that is capable of delivering emissions reductions to keep global temperature rises below 2C, with legally binding contributions from all leading emitters.

The Gillard government and the Coalition both support Australia unconditionally reducing pollution by 5 per cent on 2000 levels by 2020, and by up to 25 per cent, depending on commitments from other nations. Australia says it is committed to forging a post-Kyoto legally binding international climate outcome that is effective, fair and efficient.

It also stands by the Copenhagen Accord commitment to jointly mobilise \$US100 billion a year by 2020 to finance meaningful and transparent mitigation action by developing countries.

Australia has pledged \$599 million in fast-start finance to help developing nations, including in the area of avoiding deforestation in Indonesia and Papua New Guinea.

In short, Australia's priorities for Cancun are:

- ▶ To make sure all the commitments made post-Copenhagen are bedded down.
- ▶ To ensure proper finance is available to help poorer countries clean up their economies.
- ▶ To help avoid destruction of the world's rainforests.

Australia also is pushing for development of a framework to assist the most vulnerable developing countries, such as small island states, least developed countries and African countries, adapt to the effects of climate change.

An announcement on new funding arrangements for Pacific island nations is expected this week.

Reducing emissions from deforestation and forest degradation - or REDD, as it is known in the UN process - is likely to be one of the most tangible outcomes from Cancun.

However, there are still disputes over the details of how a REDD scheme can be implemented and how it will operate.

NGOs have expressed concern that indigenous communities may be disadvantaged by being locked out of the forests on which they depend for their subsistence.

Claims also have been made that developing countries will increasingly seek to profit by setting artificial baselines for forests that will be included in the scheme.

There is also a dispute over whether the forest agreements should be funded through direct payments or a market-based scheme in which companies pay to offset their carbon emissions elsewhere.

Australian Conservation Foundation executive director Don Henry, who is in Cancun, says it is too early to judge what progress will be made.

"I have been at five UN climate conferences and have never had a sense at the halfway mark how they are going to turn out, Henry says.

He says although Copenhagen had been disappointing in not delivering a legally binding deal, it did make important progress with an accord to limit rise in global temperatures to 2C. Follow-up target commitments offered by India, Brazil and China were quite strong after Copenhagen, according to Henry.

"One of the important things at Cancun is to build on that Copenhagen accord," he says.

"We need to bring those undertakings into the negotiating language, to give them some standing. That would be progress at Cancun."

According to Henry, there is also a reasonable chance for agreement on how to stop the cutting and burning of the world's rainforests that is responsible for 18 per cent of global emissions.

"It may need to go to South Africa next year to conclude, but it is a very big deal for our region," Henry says.

Wilderness Society campaigner Lyndon Schneiders says the society is looking for Cancun to include Australian forests in the global accounting.

"It is important to have a forest recognised as being full of carbon whether it is in the developed or developing world," Schneiders says.

Under the present rules, a forest is treated one way if it is in Canada or Australia, and a different way if it is in Indonesia.

Under the existing UN framework, the REDD process operates in the developing world and another scheme - Land Use, Land Use Change and Forestry - operates in the developed countries.

The LULUCF rules do not give developed countries a credit for forest preservation but neither do they count the carbon cost of forest practices.

Schneiders says: "The Australian government has a role to play in REDD, but are they prepared

to put their money where their mouth is and support mandatory counting of carbon emissions from logging?"

He says the Wilderness Society would support an "act of God" clause under which neither the carbon lost through bushfire nor that recovered through bushfire regeneration was counted.

In the area of finance, Combet has been asked to work as a co-facilitator with Bangladesh to help resolve some of the key outstanding issues.

One of the issues that will be discussed is the development of a global climate fund to help support developing countries adapt to the effects of climate change and reduce their carbon pollution.

Several options to raise the \$100bn a year by 2020 have been put forward for consideration.

They include direct payments from government and a variety of levies on economic activity.

One option put forward involves a levy on all air tickets and sea freight.

Such a scheme would have a bigger effect on Australia, an island nation with a big tourism industry situated a long way from the main world centres.

Wet year was also third hottest on record

THE World Meteorological Organisation says the global average temperature this year was 0.55C warmer than pre-1990 averages, making it the third hottest since records began in 1850.

Australia bucked the trend because a La Nina - a fall in surface temperatures in the Pacific - has been blamed for floods in the eastern states, making it the third wettest year on record. Inland Australia is one of the few places to record below-average temperatures.

- ▶ November global temperatures are on a par with those in November 2005, suggesting that, despite the freeze in Britain, this year is on track for near-record levels.
- ▶ Russia has had a month-long heatwave. In Moscow, July mean temperatures were 7.6C above normal.
- ▶ The most extreme temperature anomalies occurred in most of Canada and Greenland, where annual temperatures were 3C or more above normal and across much of Africa and south Asia, where annual temperatures were 1-3C above normal.
- ▶ Heat records have been broken in 17 countries.
- ▶ Pakistan had Asia's hottest recorded day when the temperature in Mohenjo-daro reached 53.7C. Pakistan also experienced its worst floods.
- ▶ Guinea is the only country to have recorded a record low temperature this year.
- ▶ Britain, Germany, France and Norway had their coolest years since 1996 thanks to below normal winter temperatures.
- ▶ Most of the US was colder than normal. For the US as a whole it was the coldest winter since 1984-85.
- ▶ Parts of the Amazon basin were badly affected by drought with the Rio Negro, an Amazon tributary, falling to its lowest level on record.
- ▶ Parts of China experienced severe drought.

25. Rising sea level risk overstated

From: The Times December 07, 2010 12:00AM

<http://www.theaustralian.com.au/news/world/rising-sea-level-risk-overstated/story-e6frg6so-1225966603406>

THE risk of rising sea levels engulfing Britain's coasts has been overstated, but the evidence for other devastating impacts of climate change is growing.

This is according to the first major review of the science of global warming since the "climategate" affair.

Apocalyptic claims about the slowing down of the Gulf Stream have been exaggerated, the review has found.

But the study, by a group of Britain's leading climate science institutions, finds some risks posed by a warming climate are greater than had been stated by the Intergovernmental Panel on Climate Change.

Confidence in climate science was shaken this year after the IPCC admitted exaggerating the risk of Himalayan glaciers melting and after emails hacked from the University of East Anglia's Climatic Research Unit suggested scientists had conspired to withhold information.

The most recent IPCC report, published in 2007, predicted the Arctic would frequently be ice-free in summer between 2080 and 2100. The latest observations of thinning ice indicate ships could sail routinely across the North Pole in summer months as early as the 2060s, according to the review by the Met Office, the Grantham Institute for Climate Change at Imperial College and the Tyndall Centre for Climate Change Research.

Released at the UN climate change conference in Cancun, where environment ministers and national leaders are trying to finalise a general statement on long-term action against global warming, the study concludes: "There is overwhelming agreement on the fundamentals - that our climate is changing and this represents a real and urgent problem."

The authors conceded there was no evidence the Gulf Stream was shutting down. The Gulf Stream brings warm water from the tropics and raises European temperatures by 5-10C on average. If it stopped it could plunge North America and Western Europe into a mini ice age. The National Oceanography Centre at Southampton University had said the flow rate had declined by 30 per cent since the 1950s.

But a study by NASA suggests it has accelerated in the past two decades. The review concludes changes are the result of natural variability in ocean currents, not man-made emissions.

It dismisses claims the sea level could rise by more than 2m by 2100 as "very unlikely".

While some studies suggest the melt rate in Greenland is increasing, others suggest the Antarctic ice sheet is growing. The review also finds that mature trees continue to absorb carbon.

This finding has implications for the debate in Cancun about rewarding countries for preserving forests.

Some rainforest countries argue that palm oil and paper plantations should be included in the reward scheme because all trees absorb carbon. The review suggests felling old trees could accelerate climate change even if they were replaced with plantation trees.

Evidence from computer models suggested emissions of methane would increase by up to 35 per cent for each degree of temperature increase.

The review suggests extreme weather could become more frequent.

As envoys arrived for the main thrust of talks starting today, and with few expecting a fully fledged climate treaty any time soon, the negotiators were considering extending the Kyoto Protocol beyond 2012, setting off disagreements.

"We must continue working with a new sense of urgency," Mexican Foreign Minister Patricia Espinosa said.

"I am optimistic we will move forward in the next two days."

The Times

26. UN draft gets it wrong on warming

Ben Webster, Cancun

From: The Times December 07, 2010 12:00AM

<http://www.theaustralian.com.au/news/world/un-draft-gets-it-wrong-on-warming/story-e6frg6so-1225966608220>

PERHAPS the hot sun and pina colodas at swim-up bars are going to the heads of UN

negotiators at the Moon Palace resort in Cancun.

A long-awaited draft text of an agreement published on Saturday contains an error about the degree of certainty that human emissions are causing global warming.

The text states: "Warming of the climate system, as a consequence of human activity, is unequivocal."

It attributes this to the 2007 report of the Intergovernmental Panel on Climate Change. That report said no such thing.

It stated that warming of the climate was "unequivocal".

It also said human emissions were "very likely" to be the cause of most of the warming since the mid-20th century, but the panel admitted it could not be certain of this.

Errors by UN bodies in climate change documents always seem to exaggerate, rather than understate, the problem.

The text presents a series of options that reflect the competing interests of the 194 countries. It makes no attempt to cut through to a compromise.

On emission reductions, it says countries could cut emissions by a "specified percentage" or set a target without regard to how ambitious it was.

On rainforests, the text says, developing countries "should" or "may voluntarily" reduce deforestation.

The first week of the talks was dominated by Japan saying it would not accept the continuation of the Kyoto protocol.

Developing countries condemned this as a betrayal.

In reality, Japan is simply being more honest than other countries.

Australia, as well as Britain and other rich countries that bound themselves at Kyoto to cut emissions, share Japan's concern that the protocol covers less than a third of global emissions.

Developing countries, including China, the world's biggest emitter, are not included.

Britain will not allow the protocol to continue unless China signs an agreement to cut emissions.

History may judge Japan's intervention as the moment negotiators were forced to confront realities, rather than distributing draft agreements full of diplomatic language, not to mention the odd howler.

The Times

27. Nuclear the best way to ensure power needs while reducing emissions

Alexander Downer

From: The Australian December 09, 2010 12:00AM

<http://www.theaustralian.com.au/business/nuclear-the-best-way-to-ensure-power-needs-while-reducing-emissions/story-e6frg8zx-1225967895551>

WHEN I visited Finland for Australian EU consultations in 2006, I visited a nuclear power plant at Olikiluoto on the Gulf of Bothnia.

There were two 860 megawatt power stations (and a third under construction). To be frank, I didn't make the visit with any preconceptions about what a nuclear power station would be like.

Two things impressed me. First, it was so quiet and clean. It seemed extraordinary that a plant that was as clinically clean as a hospital could produce so much energy. And secondly, I was surprised how little space was required for the storage of the waste. It was placed in vaults underground. I had imagined nuclear waste would be spread over several hectares but the storage capacity needed wasn't much larger than a school hall.

In Finland, generating base load power from nuclear power plants is regarded as perfectly acceptable despite their proximity to Chernobyl. In Australia there has been strong opposition to nuclear power for decades.

The campaign against nuclear power in Australia is completely irrational. It defies logic.

Over the next 40 years, demand for electricity in Australia is expected at the very least to double. If we are going to meet that demand we need a plan. Economic commonsense would tell us to leave the problem to the market. Suppliers will supply base load power from the most economically efficient technology available. In our case that is almost certainly going to be a combination of coal and gas fired power stations.

But economic commonsense isn't everything, as we know. We have other objectives beyond maximising efficiency. One of them is to clean up our environment. Another is to maximise our energy security over a period that will be uncertain.

Let us take the question of the environment. It makes sense to reduce CO2 emissions and to clean up the quality of our air regardless of whether the climate change theory is true or false. To improve the environment, we will have to sacrifice some economic efficiency. But we can do that through mandatory regulation, incentives to produce clean energy or by imposing a cost on carbon emissions. Since almost all politicians are committed to reducing carbon emissions, their actions will make alternative forms of power generation relatively more competitive.

Other than using hydrocarbons to produce electricity, we have four main choices: hydro-electricity, wind, solar power and nuclear power. There are not enough rivers in strategic locations in Australia for hydro-electric power generation to be a viable option. Wind and solar sound good, but because of the very nature of the technologies, they will never be able to provide sufficient base-load power.

Their role will always be to supplement base-load capacity -- at least as far into the future as we can envisage. That leaves nuclear power. It can provide base-load power with negligible emissions at a cost that is estimated to be between 25 per cent and 50 per cent above the use of coal. That is competitive with wind power and way cheaper than solar. But the point is, we can provide the base-load power without damaging the environment. The 25 per cent to 50 per cent extra cost may be the price we are prepared to pay for clean air.

Because of the uncertainty of the next four or five decades, energy security should also be a significant factor for Australia. Energy security means reducing dependence on imports, particularly from unstable parts of the world. Of course, we can provide locally mined coal for power stations, but if we are concerned about achieving environmental objectives as well as energy security, then nuclear power is perfect for Australia.

And let us not forget that Australia has about 38 per cent of the world's economically obtainable uranium reserves and produces 23 per cent of the world's uranium. It is not quite true to say that in a nuclear world Australia could become the Saudi Arabia of nuclear energy, but at least it demonstrates that with nuclear power Australia could maintain a very high level of energy security.

The real argument against nuclear power is not economic as some conveniently claim, it is safety. Yet the new technologies introduced since Three Mile Island and Chernobyl have improved the safety factor by many times. Remember, many more people have died in coal mining accidents than have ever been killed by a nuclear power station or uranium mining.

And when it comes to managing waste, Australia has the best geological circumstances for waste burial of almost any country on earth. After all, if we were really serious and thought nuclear waste disposal was a critical argument against nuclear power, we wouldn't export uranium.

It is an indictment of so many in our political class that they simply rule out nuclear power instead of allowing power utility companies to make decisions on the best technology based on the regulatory and taxation regime within which they will have to operate.

Alexander Downer was foreign minister in the Howard government. He is now a principal at consultants Bespoke Approach.

28. N-power a way to energise Labor

By Paul Murray | [View Archive](#)

December 9th, 2010, 1:29 pm

<http://au.news.yahoo.com/thewest/opinion/post/-/blog/paulmurray/post/2507/comment/1/>

If the Labor Party wants to find an important issue to define a clear point of distinction from the Greens, it should look no further than nuclear power.

Labor is suffering electorally around the nation because it no longer appears to stand for much other than staying in office. There is also a strong public perception that, Federally at least, the Greens are leading it along by the nose.

The Victorian election showed that the Greens remain very much a minority concern, the comfort blanket of inner-city lefties, gay rights activists and tree-huggers, solely dependent for parliamentary representation on the preferences of the two major parties.

The result proved the Greens' electoral successes can be minimised when the major parties take a principled stand against those policies that are economically damaging and threaten the living standards of all Australians - even those dreamers who fall for idealism over reality.

It's hardly a secret that the major parties have both shifted into the centre over the past two decades, making a once yawning ideological chasm into a gully. There are many policies in the Greens manifesto that would never be acceptable to either of them.

So why are these damaging policies tacitly approved by the granting of preferences ahead of the other major party whose platform is generally similar and between which a big number of voters swing from poll to poll?

Both parties have been guilty of supporting the Greens through preferences. The Liberals proved in Victoria that tactic only gives the Greens credibility. Once preferences are denied, the Emperor is seen to have no clothes.

There are now significant moves within Labor's Right to have the party's ban on nuclear power debated at next year's national conference. Good public policy demands that Labor has a sensible and consistent position on nuclear energy.

Its policy on uranium was stupidly contradictory for a long time and once it was made more coherent, the party was left with similar glaring inconsistencies between supporting the mining of a substance but not allowing its use to generate power.

Labor should also realise it would be good politics to adopt a sensible position on nuclear power and leave the Greens stranded in La-La Land.

We should remember that the Greens in WA had their origins in the undergraduate Campaign for Nuclear Disarmament - the first senator, Jo Vallentine, was elected on that platform - and has never quite grown up. All the Cold War huffing and puffing about the eve of destruction didn't eventuate, so the CND and its far-left backers, no longer having much of a target, morphed into the Greens, while holding grimly to the prejudices of the past.

The simple proposition that strands the Greens is that most of the rest of the world sees nuclear power as part of the solution to cutting greenhouse emissions, even the Chinese.

In fact, many serious commentators see nuclear as the one safe energy source that can make the big emission cuts possible within the necessary time frames to limit what is deemed to be harmful climate change.

Having just spent two weeks in South Korea gathering material for a magazine The West Australian will publish next Thursday, I find the nuclear debate in Australia ridiculous. South Korea relies on nuclear power for 34 per cent of its electricity,

We visited the site of its first nuclear facility, a 587MW Westinghouse reactor built in 1978, about 20km from the second-biggest city, Busan, hard up against a fishing village that now operates aquaculture farms in the waters used to cool the plant.

It took seven years to build that first unit and it was followed by a 650MW Westinghouse reactor in 1983 and two 950MW units of the same design in 1985 and 1986. To give an idea of scale, the four coal-fired units at WA's biggest power plant, Muja, can produce 854MW in total.

At the Kori plant near Busan, two 1000MW units are in the final stages of commissioning, two 1400MW units under construction will come on stream in 2013-14 and another two are planned

for the site.

These units represent a major shift in Korea's nuclear expertise. They are home-grown.

By the 1990s, South Korea had developed its own nuclear technology and it recently beat France, the US and Japan to win a contract to build four 1400MW units in Dubai. Yes, oil-rich Dubai.

Not only has Korea Hydro and Nuclear Power extended the life of the first reactors to 40 years, the new 1400MW plants will last 60 years and their construction time has been cut to four years.

The country's Ministry for Knowledge Economy, which controls the nuclear program, says it will export another 80 reactors by 2030, so great is the international demand.

Attacking Labor's new debate last week, WA Greens Senator Scott Ludlum quoted from a report by the deputy director of the Institute for Environmental Studies, Dr Mark Diesendorf, purporting to show nuclear power is uneconomic. "Dr Diesendorf found that the cost of building a nuclear power plant has risen rapidly since 2002, from more than \$US2000/kw of generation capacity installed, to about \$US7400/kw," he said.

Well, the Koreans, who are actually in the business, say their cost of construction is \$US2300/kw, cheaper than the French and Japanese (\$US2900) and Americans (\$US3580).

"Dr Diesendorf's report ... found that the cheapest renewable energy sources - including landfill gas, onshore wind, conventional geothermal and hydro - are already cost-competitive with conventional nuclear energy power plants," Senator Ludlum said. "By 2020, offshore wind farms, solar thermal and solar photovoltaics are all projected to be less expensive than nuclear energy."

Well, you can forget about more hydro and big amounts of landfill for baseload power in Australia. Geothermal is a distant and unlikely dream.

As for the rest, Korea's nuclear development white paper issued this year shows a starkly different picture.

Frankly, I'd back the Koreans because the brilliant economy they have built that transformed them from one of Asia's poorest nations at the start of 70s to one of its richest by the end of the 90s, depends on these assessments.

The reason we don't have nuclear power in Australia is because we have such cheap coal and gas. But Dubai has cheap oil and gas - and they are investing heavily in nuclear.

Labor should realise that nuclear power is a realpolitik issue which exposes the Greens as ideological economic wreckers unable to make a rational contribution to climate change mitigation.

29. Australians confused about climate science

Leigh Dayton, Science writer

From: The Australian December 08, 2010 12:00AM

<http://www.theaustralian.com.au/national-affairs/australians-confused-about-climate-science/story-fn59niix-1225967238935>

AUSTRALIANS are confused about the level of agreement among climate scientists on global warming, according to a new survey.

Nearly 40 per cent of respondents think most climate scientists disagree over whether the Earth has warmed in recent years, while more than 34 per cent believe experts disagree that human activities such as burning coal and oil are a major cause of climate change.

The results come from a nationwide poll of 1200 people older than 18, conducted for the Australian National University by Melbourne's Social Research Centre. The findings follow yesterday's Newspoll, which showed that 77 per cent of people believe that climate change is occurring, and 94 per cent of those respondents blame human activity.

"I think they're very complementary findings," said report co-author and social scientist Will Grant with ANU's Australian National Centre for the Public Awareness of Science.

"People believe (in global warming) but a major confusion exists about what's going on in the science," he said.

According to Dr Grant, the complexity touches on other science and policy questions he asked, along with ANU colleagues Rod Lamberts and Aaron Martin.

Nearly 80 per cent agreed that politicians should rely more on expert scientists and more than 80 per cent agreed that politicians were too easily swayed by media reaction to scientific issues.

"I think people are saying that science is portrayed in the media as being a lot more contentious than they believe," said Dr Grant.

30. Cancun ignores energy efficiency paradox

Bjorn Lomborg

From: The Australian December 13, 2010 12:00AM 14 comments

<http://www.theaustralian.com.au/national-affairs/commentary/cancun-ignores-the-energy-efficiency-paradox/story-e6frgd0x-1225969778699>

SEVERAL thousand officials from 194 countries just gathered in Cancun, Mexico, for yet another global climate summit.

Dissatisfied with the pace of climate diplomacy, many people are now wondering what they can do about climate change on their own.

For years now, climate activists from Al Gore to Leonardo DiCaprio have argued that individual actions such as driving more economical cars and using more efficient light bulbs are a crucial element in the effort to address global warming. The UN climate panel and the International Energy Agency both echo this sentiment, insisting that higher energy efficiency could reduce energy consumption by up to 30 per cent making improved efficiency an effective remedy for climate change. But is this really true?

Here's something to think about. Back in the early 1970s, the average American expended roughly 70 million British thermal units per year to heat, cool, and power his or her home. Since then, of course, we have made great strides in energy efficiency. As The Washington Post recently reported, dishwashers now use 45 per cent less power than they did two decades ago, and refrigerators 51 per cent less. So how much energy do Americans use in their homes today? On a per capita basis, the figure is roughly what it was 40 years ago: 70 million BTUs.

This surprising lack of change is the result of something economists call the "rebound effect". It's a phenomenon familiar to urban planners, who long ago discovered that building more roads doesn't ease traffic jams; it merely encourages more people to get in their cars and drive.

The underlying principle is a decidedly counterintuitive fact of life. You might think that learning to use something more efficiently will result in your using less of it, but the opposite is true: the more efficient we get at using something, the more of it we are likely to use. Efficiency doesn't reduce consumption, it increases it.

The Breakthrough Institute recently highlighted on its blog some startling and important research findings along these lines, published in August in The Journal of Physics by energy economist Harry Saunders and four colleagues from the US Department of Energy's Sandia National Laboratories. As Saunders noted in a summary on the blog, he and his colleagues, drawing on "300 years of evidence," found that, "as lighting becomes more energy efficient, and thus cheaper, we use ever-more of it".

For this reason, the proportion of resources that we expend on lighting has remained virtually unchanged for the past three centuries, at about 0.72 per cent of gross domestic product.

As Saunders and his colleagues observe in their journal article, "This was the case in the UK in 1700, is the case in the undeveloped world not on grid electricity in modern times, and is the case for the developed world in modern times using the most advanced lighting technologies."

The conclusion that Saunders and his co-authors draw from this is surprising and hard to dispute: rather than shrinking our electricity use, the introduction of ever more efficient lighting technologies is much more likely to lead to "massive growth in the consumption of light".

It's difficult to overstate what these findings mean for climate policy. In a nutshell, they tell us that, while increasing energy efficiency is undoubtedly a good thing, it is most assuredly not a remedy for global warming. Or, as Saunders puts it, "energy efficiency may be a net positive in increasing economic productivity and growth, but should not be relied upon as a way to reduce energy consumption and thus greenhouse gas emissions".

This is not an argument that should encourage anyone to go out and buy a Hummer. But we shouldn't fool ourselves into thinking that swapping our current car for a Prius, or replacing our incandescent lights with energy-efficient fluorescent bulbs, will strike a meaningful blow against climate change. The real fix to this problem will come when governments focus on research and development aimed at boosting the proportion of green energy sources in overall consumption.

It may be reassuring to believe there are cheap and easy things we can do as individuals to stop global warming, or that the answer is to continue chasing a chimerical global agreement on carbon cuts, as in Cancun. The real action we can take is to press our politicians to put smarter ideas on the table.

Bjorn Lomborg, head of the Copenhagen Consensus Centre, features in the documentary , Cool It, released last month.