

ITER Forum Media Log September 2010

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1. Answer isn't blowing in the wind, but hot air is abundant

Peter Beattie From: [The Australian](#) August 14, 2010 12:00AM

<http://www.theaustralian.com.au/national-affairs/answer-isnt-blowing-in-the-wind-but-hot-air-is-abundant/story-fn59niix-1225904799510>

The lack of debate on energy in the election campaign is a missed opportunity

THE untapped potential power of geothermal energy was driven home to me a few weeks ago as I stood watching the explosive force of the Old Faithful geyser at Yellowstone National Park in Wyoming.

Under Yellowstone's crusty surface is not just the potential for catastrophic volcanic eruptions but also for heat to power the world. It's simple. Use the earth's heat to convert injected water into steam to drive our electricity generators.

The earth beneath Yellowstone is alive as water, heated hundreds of metres underground, is forced to the surface and explodes up to 6m into the air. It is a demonstration of the earth's hidden power.

And while Australia isn't as spectacular as Yellowstone, we have the potential to help satisfy the energy needs of the world's ever-growing population.

This fact was highlighted when I met Google representatives in San Francisco in January. The internet giant is pouring millions of dollars into renewable energy projects and has high hopes for geothermal. They pulled out a map of the best geothermal prospects in the world and, to my amazement, Queensland featured prominently.

Google has estimated that if we can get the technology right, Queensland has enough geothermal power to supply energy for the entire east coast of Australia. And it doesn't matter if it's cloudy or the wind stops blowing.

Queensland University has a geothermal research centre, also on Google's radar, which could do with some heavy investment from the future federal government, as could the whole geothermal industry in Australia.

There is a lack of real debate about energy in this election campaign. I would love to see both candidates for the prime ministership spell out their visions and planned investments in Australia's future energy security and energy mix. The emissions trading scheme has had its share of political attention and there have been short-term energy announcements but no one is paying enough attention to the difficult questions of long-term energy security in an increasingly environmentally conscious world.

The world gap between energy supply and demand is only going to get bigger. Australia has to take up the challenge of our energy needs and investments with an openness and honesty that ensures the energy choices we make for the next 20 years are based on the latest technology, not old prejudices.

Global innovation is driving development of new technologies to bring online geothermal, solar, wind and biofuels to serve the world's energy needs, but in Australia there is a lack of political leadership and investment. Nuclear energy, which for years was off-limits to many environmentally conscious Australians, including me, is finding acceptance even for some in the green movement because it is non-carbon.

When it comes to increased baseload power demand, simply putting solar panels on homes or erecting wind turbines will not provide for the energy demands of the future. The reality is we need to be investing in all the energy options.

Australia should get serious about cleaning up old carbon energy reserves and not reducing our financial commitment, as we have seen in this campaign. Clean coal technology and carbon capture and storage will do more to reduce carbon emissions and provide cleaner energy for the world than any other technology. We can then sell that technology to the world. It could be a significant diversifier of our economy and a long-term basis of growth.

As well as fast-tracking development of advanced coal technologies, we should also be strategically investing significant amounts of money in new sources of baseload energy such as geothermal power.

Our political leaders need to accept Australia has a problem in security of energy supply when it comes to oil. In the next decade that problem will not be solved by driving more electric cars or by getting rid of the old clunkers.

The BP oil spill disaster in the Gulf of Mexico is an example of drilling practices reaching and exceeding their limits. We have discovered in the most tragic way that we haven't got all contingencies covered for oil drilling in very deep water. The blowout of the Deepwater Horizon well has seriously undermined the safety and environmental credentials of deep-water drilling.

US President Barack Obama is doggedly fighting to impose a moratorium on future drilling. Brazil, which has discovered huge new reserves of oil in very deep water, will be watching closely.

As a result of the BP disaster, any advances in new technologies that change the environmental impact of old energy sources will be received with interest by the world's heavy energy users such as the US and China.

Australia's opportunity lies in increasing our research and development commitment to be part of the solution, but this will require long-term thinking by the next Australian government, and that may be a tough ask.

One energy source that may require a rethink is shale-oil production. As Queensland premier, I withstood constant attacks from Greenpeace over a pilot shale-oil plant near Gladstone. The reality was the old technology didn't work and the Queensland government was right to place a moratorium on shale-oil production in Queensland.

In late June I visited a pilot shale-oil plant in Rifle, Colorado, with the company Queensland Energy Resources, which is building a New Fuels Development Centre in Queensland. It is using the Rifle plant as a model to build a similar shale-oil pilot plant in Queensland using totally different technology to that used in Gladstone in the past.

I was cynical before the Colorado visit, having been through the local complaints of the Gladstone people about the emissions from the old plant. Greenpeace had been right to campaign for the plant's closure.

QER claims its process is safer, simpler and more efficient. I walked all over the plant in Colorado, which was actually processing Queensland oil shale, and it produced no more emissions or noise than the hundreds of gas wells dotted across the same Colorado landscape.

Compared to the risks of drilling for oil in ultra-deep water, this far simpler shale-to-liquids process has to be a better environmental option.

The test for QER is to prove that to the people of Gladstone and environmentally conscious Australians. If it can, Australia could find itself with a clean shale-oil industry employing 6000 people and adding \$30 billion to the economy over the next 20 years. It has the potential to sit alongside clean coal, geothermal, coal seam gas, biofuels, solar and wind in a realistic future global energy mix.

The strongest tensions among nations in the 21st century will be over energy and water supply. The world's increasingly over-populated countries cannot survive without both.

A key part of the solution lies in developing energy innovations through strategic investment in new and old energy sources.

2.Humans affect climate change

Cheryl Jones From: [The Australian](#) August 18, 2010 12:00AM

<http://www.theaustralian.com.au/national-affairs/humans-affect-climate-change/story-fn59niix-1225906508258>

THE Australian Academy of Science has pitted its expertise against the greenhouse sceptics in a report stating that humans are changing our climate.

The statement expresses for the first time the consensus among Australia's top climate scientists on the evidence for human-caused global warming.

In it, nine eminent climate scientists declare that global average temperatures has risen during the past century, and that increased greenhouse gas levels due to human activity are mostly to blame. The academy issued the statement, *The Science of Climate Change: Questions and Answers*, in Canberra on Monday as part of National Science Week.

The document sets out the evidence for human impact on climate and outlines the possible consequences of failure to make deep cuts to greenhouse gas emissions.

It synthesises the latest peer-reviewed research and identifies areas of scientific uncertainty, such as regional impacts and tipping points: thresholds that, if crossed, could send the climate system awry.

Kurt Lambeck, immediate past president of the academy and a professor at the Australian National University's research school of earth sciences, initiated work on the document to clear up common misconceptions.

"I was getting frustrated with the level of the debate on climate change, and the general confusion it was creating in the broader community," he said. "One of the reasons that was occurring was that the science was getting so complex.

"A lot of the genuine scientific debate is about issues that are largely second order things, and they do not impinge on our principal understanding of climate change."

He said the fundamental principles of climatology, such as the role of carbon dioxide in global warming, were beyond dispute. But scientists were still arguing about the complex Earth systems feedback mechanisms, such as the possible cooling effect of clouds.

"If temperatures go up, there is going to be more evaporation, and that will produce more clouds," Professor Lambeck said. "That could produce a negative feedback, but to quantify that is a very difficult thing.

"How do we put that cloud cover into the models? That's where uncertainty comes in, but that's not going to change the basic outcomes."

Among the authors of the academy's report are David Karoly, of the University of Melbourne; Matthew England, of the University of NSW; Michael Bird, of James Cook University; and the CSIRO's Mike Raupach.

"They have identified the questions," Professor Lambeck said. "They've debated the answers. Here is the best advice you can get from the scientific community by real experts in their fields in climate science."

A seven-member committee of experts reviewed the document, which concluded: "Decisions will need to be made before we have absolute certainty about the future."

3. Fresh leadership is urged for UN's climate assessment panel

By [Physics Today](#) on August 31, 2010 2:45 PM

http://au.mg1.mail.yahoo.com/dc/launch?_gx=1&rand=ds6e0802aurag

The [Intergovernmental Panel on Climate Change](#), the United Nations–chartered scientific entity that periodically assesses the state of climate change, should appoint a full-time executive director and should restrict the terms of that individual, and that of the IPCC chairman, to the six years it takes to prepare each assessment, according to an [independent evaluation](#) of the IPCC's processes and procedures.

The report also urged the IPCC to more diligently consider and incorporate the comments of reviewers, and to reformulate the methodology that it uses to describe the uncertainty of its forecasts.

The review committee, formed under auspices of the [InterAcademy Council](#), an umbrella organization comprising the national science academies of 15 nations, further called for the disclosure of potential conflicts of interest held by the scientists who work on a voluntary basis to produce the IPCC assessments.

Other UN agencies, including the World Meteorological Organization and the United Nations Environment Program, do disclose their potential conflicts, noted retired Princeton University president and economist [Harold Shapiro](#), who chaired the committee.

Shapiro told reporters that his panel did not evaluate the performance of individuals in the IPCC organization. But its report does urge that the IPCC chairman, together with the editors for each of the assessments' six chapters and the executive director that it calls for, should all be replaced on completion of an assessment cycle.

Asked by reporters if he would resign, [Rajendra Pachauri](#), who has served as IPCC chairman since 2002, was noncommittal, saying that he will wait to see whether the recommendations are accepted by the IPCC's 194 member nations when they meet to discuss the report in October. But Pachauri noted that he was elected to head the current, fifth assessment, which is due for completion in 2013.

The report called for the creation of an executive committee, to include the IPCC chair, working group coauthors, senior staff, and three independent members, including some from outside of the climate community. The committee would handle the day-to-day operations of the IPCC.

Noting how the most recent IPCC assessment issued in 2007 had drawn 90,000 review comments, and had stretched the ability of lead authors "to respond thoughtfully and fully," the report urged a more targeted and effective process in which editors would prepare a written summary of the most significant issues raised by reviewers shortly after review comments have been received.

Reforming the review process

The committee recommended adopting a system used by the US National Research Council by which authors are required to provide written responses in only two cases: 1. to the list of the

most significant review issues; 2) to any other substantive reviewer comments with which they disagreed and did not implement.

A variety of methods for gauging the uncertainty of climate change forecasts were employed by the three working groups in preparing the fourth assessment's summary for policymakers. The Shapiro committee urged that all groups use a qualitative level-of-understanding scale, possibly supplemented by a quantitative probability scale where appropriate.

The committee also faulted the IPCC's "slow and inadequate responses" to reports of errors in the 2007 assessment report. It recommended that a communications strategy be formulated "that emphasizes transparency, rapid and thoughtful responses, relevance to stakeholders, and which includes guidelines about who can speak on behalf of IPCC and how to represent the organization appropriately."

The IPCC has apologized for one error included in the 2007 assessment—its forecast that Himalayan glaciers are very likely to disappear by 2035 or sooner. That forecast was followed by the assertion that those same glaciers will shrink from 500,000 square kilometers to 100,000 square kilometers over the same time scale. The Shapiro committee noted that the authors and editors of the chapter had failed to carefully consider the comments of two expert reviewers who had questioned those statements.

To combat "confirmation bias"—the tendency for authors to place too much emphasis on their own views relative to others—the committee urged that explicit documentation be provided showing that a range of scientific viewpoints had been considered, and that senior IPCC editors satisfy themselves that due consideration was given to alternative views.

David Kramer

4. Local support for report on UN climate panel

Leigh Dayton, Science writer From: [The Australian](#) September 01, 2010 12:00AM

<http://www.theaustralian.com.au/news/world/local-support-for-report-on-un-climate-panel/story-e6frg6so-1225912528257>

AUSTRALIAN scientists have given a qualified thumbs-up to findings of a review of the UN's climate panel, released yesterday in New York.

There was support for the independent committee's finding that "fundamental reform" of the governance and processes used by the Intergovernmental Panel on Climate Change would enhance its reports on the state of global-warming science, impacts and solutions.

Climate scientists Matthew England of UNSW and David Karoly of Melbourne University, both IPCC contributors, welcomed the 20 recommendations from the Amsterdam-based InterAcademy Council.

Professor Karoly said they offered a way of tackling "real issues" such as the use of non-peer reviewed data, one instance of which led to the incorrect claim in the 2007 IPCC assessment that Himalayan glaciers would disappear by 2035.

But while the finding that the IPCC was largely successful should boost public confidence, he said it would have little impact on "vested interest groups" campaigning to devalue the body's assessments.

Responding to the report, IPCC head Rajendra Pachauri criticised "ideologically driven posturing" in attacks on the Nobel Prize-winning panel and said member nations would decide whether to replace him.

He acknowledged the IPCC's reputation had been tainted by errors, but insisted the core assertion that the world was heating up had not been challenged.

A key IAC recommendation was that the IPCC implement a "communications strategy" that responds promptly to criticism and presents complex science accurately and cautiously to the media and public.

Additional reporting: AFP

5. Sustainable? We're a lot smarter than that

Stephen Lunn From: [The Australian](#) September 04, 2010 12:00AM

<http://www.theaustralian.com.au/news/opinion/sustainable-were-a-lot-smarter-than-that/story-e6frg6zo-1225914025010>

IT'S the neo-Malthusians who get up Austin Williams's nose. The high-profile British architect loathes the smug "carbonistas", the ecological armageddonists and those who've grown afraid of future growth, indeed of the future, and their burgeoning political influence.

About to land in Australia for a conference on innovation and creative thinking in Melbourne next week, Williams, director of the Future Cities Project in London, will press his case that we should not be sacrificing humanism at the altar of environmental sustainability. Speaking to Focus from London, he weighs into the population debate so prevalent in Australia during the federal election campaign. "There's this tired Malthusian logic that's coming back into the mainstream across the Western world, that humanity is a huge problem for the planet," he says.

(English economist Thomas Malthus posited in the early 1800s that the geometric growth rate of the population would outstrip the arithmetic growth rate of food supply, which would cause poverty and starvation, and would be resolved only by famine, war, an outbreak of disease or what he labelled "moral restraint". It gained credence before being dismissed as too pessimistic and failing to take into account technological advances.)

"It's amazing that Malthus was so widely discredited, but now he's back being discussed in such a positive light at all the right dinner parties," Williams says.

All perspective has been lost in the population debate, he says, in Australia and across the Western world. "It's frankly farcical, vaguely pathetic and sadly tragic that this is the discussion we're having right now," Williams says.

"We seem to have lost any notion of the future as a positive place to be. We've forgotten that humans are endlessly creative individuals. We instead see ourselves as problems, not solutions, and once that becomes the prevailing view the next logical step is the fewer humans the better.

"This negative view that we are nothing more than carbon excreters is an attitude I find reprehensible. I see humans as problem solvers, so the more people there are the more problems that will be solved and the better society will be."

Urban congestion is something we should embrace, Williams argues, with any adverse issues eminently fixable with the right policy settings and technology.

"I say congestion is what a city is. An uncongested city is a village. People come to the city for the hurly-burly. I've never seen a city in the Western world where the congestion problems are so bad they couldn't be resolved with better infrastructure."

Williams will join other leading thinkers, including Edward de Bono, former boss of the prime minister and cabinet department Peter Shergold, McKinsey managing partner Michael Rennie and ABC managing director Mark Scott at the Creative Innovation 2010 conference in Melbourne starting on Wednesday. The conference is designed to thrash out ideas for the future, at a business and community level.

Williams will tell the conference of his disdain for the catch-all notion of sustainability.

He says architecture and society in general have been cowed by those who preach the gospel of sustainability, leaving decision-makers paralysed.

"If you go back to the swinging 60s it was all peace, love and understanding. Now it's fear, loathing and ecological armageddon. There's a fundamental lack of belief in modernity. Words like development and growth now have negative connotations . . . we need to reclaim the humanist agenda, which puts people first, and the technological advances will inevitably come."

Focus points out to Williams that in the wake of the "big Australia" debate, the Rudd government created a new population minister, before the Gillard regime changed the name to Sustainable Population Minister (Tony Burke).

"Having a minister for population is bad enough, let alone the last bit," Williams says.

"A minister for population sounds like a job to stop the freedom of movement of people, which is a right-wing agenda and something I'm opposed to. But to add to it the notion of sustainability seems to be an attempt to give it some form of leftist legitimacy, a left-wing softness, almost taking it beyond politics. The victory of the sustainability lobby worldwide is that when you couch anything in the language of sustainability it stops you getting to the nub of the political debate."

Treasury's third Intergenerational Report last year was the catalyst for the population debate in Australia. It predicted the national population would increase to 36 million by 2050.

Treasury secretary Ken Henry said earlier this year he wouldn't be surprised to see a new city created in the next couple of decades to absorb some of that capacity. Williams applauds Henry's vision but worries any attempt to bring it to fruition would become "bogged down by bureaucratic wrangling about what and where". "These big ideas get dragged down into areas such as how to deal with the additional carbon emissions and . . . nothing ever ends up happening," he says. "Building a new city would inevitably mean a bigger carbon footprint and therefore would require some brave political decision-making."

Those who fret about carbon footprints and have no faith in humans to solve the carbon problem, get short shrift from Williams. He labels them "carbonistas", highlighting the notion that such concern is merely fashionable.

"There's a divide occurring in society premised on carbon and how we handle it. It's become a moralistic split. It's not based on class, but being rich certainly helps when it comes to being seen to minimise carbon footprints.

"Certain people have smugly created a new low-carbon fraternity. It's a new way of reframing their contempt for the oiks, the chavs, the lower orders. It all has a very Victorian feel about it."

Given the angst in Australia about the death of the suburban dream, Focus asks Williams about his vision for a city. He says the key is to work out what a city is for, then to an extent get out of the way and let it happen.

"China isn't having these discussions about the nature of cities. Something's happening there at least. Sure, a lot of it isn't pretty . . . but they are resolving the problems as they arise.

"In the West, we've problematised everything to the extent that we don't do anything. Whether it be roads or trains or other infrastructure, an interminable debate ensues about what it should be like and before you know it 10 years have passed."

6. Germany agrees to extend life of nuclear power stations

Angela Merkel's coalition government decides to lengthen service of plants by average of 12 years

Kate Connolly in Berlin

[guardian.co.uk](http://www.guardian.co.uk), Monday 6 September 2010 14.59 BST

<http://www.guardian.co.uk/world/2010/sep/06/germany-extend-nuclear-power-stations>

The German government today agreed to extend the working lives of its nuclear reactors by an average of 12 years, in a controversial move that will shape the [energy](#) strategy of Europe's largest nation for decades to come.

Having put the seal on a deal that was hammered out after lengthy talks between politicians and power companies, the German chancellor, [Angela Merkel](#), hailed it as a "revolution in energy provision". She said it would help to ensure [Germany's](#) place at the forefront of "the most environmentally and worldwide most efficient" energy policy.

Under the agreement, the four power companies E.ON, RWE, EnBW and Vattenfall have agreed to pay the German government €30bn (£25bn) to allow the operating lives of its 17 nuclear plants to be extended. The companies will also pay €2.3bn in nuclear-fuel rods tax over the next six years, as well as an annual €300m for the next two years and €200m between 2013 and 2016 into a special renewable energy investment fund.

The decision marks a turnaround on the decision reached almost a decade ago under the Social Democratic (SPD) and Green party coalition of Gerhard Schröder to phase out [nuclear power](#) early in the next decade.

Opposition politicians and environmental groups referred to today variously as "heartbreaking" and "a black day".

Sigmar Gabriel, leader of the SPD, said it was a "black day for energy policy", and accused the government of selling out to the energy lobby. "The security of the Germans has been sold to four large companies," he said. "Never before has the impression been given so shamefacedly that politics can be bought."

The decision could prove the government's hardest test yet, at a time when its popularity ratings are suffering. According to recent polls, most Germans are in favour of phasing out nuclear power as soon as possible. Experts have predicted that the issue could put new wind back in the sails of the Green party, which has pledged to reverse the decision if it gets into government.

Merkel now faces the tough challenge of trying to ensure that any draft law bypasses the Bundesrat, or upper house of parliament, where she lost her majority earlier this year.

Greenpeace energy expert Tobias Münchmeyer said extending the lives of the plants amounted to little more than "a pure monetary gift from the government", which "damages Germany while being of advantage to the companies". He said the decision would also lead to the production of "thousands of tonnes" of additional atomic waste, and with it, the problem of where and how to store it.

The conservative government in neighbouring Austria condemned the decision, referring to it as a "disappointment" and a "retrograde step" for energy policy. "Germany has simply made it easier for itself to keep its CO2 emissions down," said Austrian environment minister Nikolaus Berlakovich, who added that the future lay in renewable energies. "What's clear is that atomic energy is no answer to climate change and no sustainable way in which to reduce CO2 emissions," he said.

A protest against the decision has been scheduled for 18 September in Berlin.

But Merkel, who spent a week in August touring nuclear power plants and alternative energy producers, said it was precisely to ensure the embracing of renewable energy that she had agreed to keep nuclear power plants running for longer. She said nuclear power would be a "bridge" that would allow more time for reliable and affordable technologies to be developed. Merkel pointed to the renewable energy investment fund, whereby nuclear utilities will effectively pay part of their gains from the extension to develop renewable energy.

The decision was reached following a report that said Germany would not be able to reach its goal of reducing CO2 emissions by 80% in 2050, compared to 1990 levels, if it abandoned nuclear power too soon.

7. Nuclear power plants are not bomb factories

Andrew O'Neil From: [The Australian](#) September 18, 2010 12:00AM

<http://www.theaustralian.com.au/news/opinion/nuclear-power-plants-are-not-bomb-factories/story-e6frg6zo-1225925594625>

STATES acquire their arsenals through military programs, not civilian facilities.

FACTUAL accuracy is a frequent casualty in discussion of nuclear issues in Australia. The tendency of certain industry sectors and parts of government to exaggerate the economic benefits of nuclear power and dismiss genuine concerns over nuclear safety has been well canvassed. Yet far less attention has been paid to examining the coherence of the arguments put forward by those who oppose Australia's involvement in the nuclear fuel cycle as a supplier of uranium.

Recent observations by Australian Greens senator Scott Ludlam seeking to justify his party's opposition to Australian uranium exports ("Old-tech nuclear power is not the answer for modern society", *The Australian*, September 17) presents an opportunity to test these arguments. The essential thrust of his case is that it is impossible to distinguish between the civilian and military exploitation of nuclear energy and that, as a consequence, any promotion of civilian nuclear power will inevitably promote its use for military purposes.

However, there are serious flaws in this argument. Since 1945, global nuclear proliferation dynamics have remained largely disconnected from the civilian nuclear industry. Every nuclear weapons program since and including the US Manhattan Project has been the product of dedicated military reactors rather than an offshoot of civilian programs. Fissile materials for nuclear weapons development programs are the product of special-purpose reactors, not a corollary of civilian reactor programs, whose mix of nuclear fuel is specifically calibrated for generating electricity and other utility outputs.

There is simply no historical evidence to support the proposition that civilian nuclear reactor programs fuel weapons proliferation. Today, there are a mere nine nuclear weapons states in the international system (the US, Russia, France, Britain, China, Israel, India, Pakistan and North Korea), despite the fact that more than 1000 nuclear reactors have operated across several continents since the 1940s. All nuclear weapons states acquired their arsenals through purpose-built military facilities, not as a by-product of civilian reactors.

The case of North Korea, the most recent entrant into the nuclear weapons club, is illustrative in this regard. Ludlam claims that Pyongyang "turned [its nuclear program] to more lethal purposes on nothing more than a quiet change of policy". North Korea may have issued specious claims during the 90s that its Yongbyon reactor was for civilian purposes, but no one - including high-level International Atomic Energy Agency experts - was in any doubt at the time these claims were made that North Korea's nuclear reactor program was military in its focus and intent. While Ludlam implies that Iran's nuclear program is dual use ("Iran is pursuing an ambiguous path"), no one seriously believes that Iran is not pursuing a weapons acquisition program. To imply that North Korean and Iranian policy-makers started out with a civilian nuclear facility and were somehow tempted by an overlap between bombs and fuel into acquiring nuclear weapons is misleading.

It is fairly straightforward for the international community to tell if an individual state is using civilian facilities as a front for a military program. If the state in question refuses to subject a facility to international safeguards and inspections, it is obvious they have something to hide. If they do subject a proliferation-focused facility to the detailed material accounting procedures of the IAEA, they will be caught out.

Australia has very strong normative and material incentives to ensure that its uranium does not end up in weapons programs. It can achieve this relatively easily by insisting that all recipients of Australian uranium already have accepted IAEA full-scope safeguards over their national nuclear industries. Insisting that all importers of Australian uranium have ratified the IAEA's landmark

Additional Protocol, which grants inspectors legal authority to carry out snap inspections of any nuclear facility at any time, promotes further confidence that diversion to clandestine military programs will not occur. The fact there has been no documented case of Australian nuclear fuel being misappropriated should inform, at the very least, the deliberations of those who would close down Australia's uranium export industry.

Andrew O'Neil is professor of international relations at Griffith University and director of the Griffith Asia Institute. He is a chief investigator on the Australian Research Council project Australia's Nuclear Choices.

8. Old-Tech Nuclear Power is not the Answer for Modern Society

Scott Ludlam The Australian 17 September 2010

LET'S not expect a volatile, antiquated technology to solve any problems, says Scott Ludlam. JUDGING from the extraordinary outpouring of editorial anguish - ranging from simple name-calling to paranoid hysteria - over the Greens' cautionary uranium mining policies, it seems we may have hit a nerve.

One thing missing has been any analysis of why we believe the nuclear industry should be phased out. In an age of climate change it seems reasonable to ask whether nuclear energy should have a bigger place in the energy mix. And if it does, perhaps that does justify overlooking the eternal contamination legacy at uranium mine sites, and profiting handsomely from supplying an energy-hungry world with a low emissions fuel.

This world view has been described in recent days as pragmatic, practical, responsible even. It should be the job of the news media to test these assumptions to see if they have any basis in reality, rather than regurgitating mining industry press releases. Here's what a cursory examination of the facts reveals.

All nuclear power stations are based on 1940s-era technology to build nuclear weapons. They are essentially plutonium factories, producing small quantities of plutonium while shedding vast amounts of heat. In the 50s, Soviet and US engineers realised they could adapt these plants for power generation, hooking them up to steam turbines and promising electricity that was "too cheap to meter". Now we have more than 400 of these hybridised weapons plants generating a shrinking fraction of electricity across the world.

Since the beginning, the potential has existed for the diversion of a few dozen kilograms of refined plutonium or highly enriched uranium through the porous boundary between civil and military facilities.

It takes 4kg to 16kg of refined plutonium or highly enriched uranium to reduce a city to a field of irradiated debris in one flash of light. This has led to the establishment of a sprawling acronym soup of multilateral agreements and treaties designed to keep nuclear weapons in the hands of "responsible" countries and out of the hands of everyone else, even as the industry tries to push the enabling technology into as many countries as possible.

Nuclear flashpoints in Iran and North Korea are the only examples we should need. In North Korea, "peaceful" facilities were turned to more lethal purposes on nothing more than a quiet change of policy. Iran is pursuing a more ambiguous path, building a massive uranium enrichment plant while pursuing a suspect argument that the intention is benign. The technology for bombs or fuel is the same, it all depends on changing government policy.

An apparent blindness in the boardrooms and editorial desks of Australia is preventing the acceptance of this basic fact: the nuclear industry, at heart, is a military industry holding up a battered commercial facade.

Nowhere is this more true than in the new markets of China, Russia and India - nuclear weapons states - all of which the Australian mining industry is desperate to access. The proposed ramping up of uranium sales to these countries under the cover of "safeguards agreements" needs to be the subject of open-minded and well-informed debate in Australia.

It is hard to identify where in the mainstream media this debate will be given a chance to develop beyond the juvenile anti-Greens spitting contest we've witnessed during the past 48 hours.

To the great dismay of those who genuinely thought nuclear fission would be a cheap way of spinning a turbine, attaching plutonium plants to steam engines turned out to be a potent force for mass bankruptcy.

In no deregulated energy market, anywhere in the world, is the private sector putting up its own money to build nuclear power stations. The industry remains on subsidised life support everywhere and is making headway only in a tiny handful of countries with state ownership of generators and command and control energy networks. The net effect, as researcher Mycle Schneider has graphed in stark terms, is that the nuclear industry flatlined in the 80s, began to decline in 2002 and is headed for steeper decline, or in the best case stagnation, for the foreseeable future.

The reasons are a complex mix of ageing reactors, formidable project costs, the unwillingness of insurance companies to cover the astronomical liabilities of reactor accidents and the 65-year unanswered question of what to do with radioactive spent fuel for the next quarter of a million years.

This is reflected, in part, in the recent world uranium price slump and the 24 per cent drop in Australian uranium export earnings in the past 12 months. We still earn more from our cheese exports than from uranium. If there is a riskier, more expensive, slow moving and downright ridiculous way of tackling climate change, then I haven't come across it yet.

Is it really the view of the Australian media and business establishment that people who ask these difficult questions are extremists or economic illiterates? Or is it just that the uranium mining industry would rather not expose the unpleasant reality of their business model to the harsh light of a genuine debate?

Greens senator for Western Australia Scott Ludlam is the Australian Greens' national spokesman on nuclear issues.

9. Largest solar plant planned

Stuart Rintoul and Nicola Berkovic From: [The Australian](#) September 22, 2010 12:00AM

<http://www.theaustralian.com.au/news/nation/largest-solar-plant-planned/story-e6frg6nf-1225927550225>

VICTORIA is set to have the country's largest solar power station.

This follows the Victorian government's decision yesterday to commit \$100 million to a new large-scale solar development in the state's northwest.

The TRUenergy plant, south of Mildura, would be the second large-scale solar plant to be built in the Mildura area over the next five years, positioning the region as one of the nation's key solar energy hubs, Premier John Brumby said. Solar company Silex took over a troubled proposal to build a 154-megawatt plant in the area after its developer, Solar Systems, went into administration last year.

Mr Brumby said yesterday the investment was a key part of the government's aim of increasing the state's electricity supply from large-scale solar power to 5 per cent by 2020. The government aims to support development of five to 10 large-scale solar plants in regional Victoria by 2020.

TRUenergy managing director Richard McIndoe said the 180 megawatt Mallee Solar Park plant, which would have the capacity to generate enough power for 60,000 homes, would go ahead only if it had both state and federal backing.

But Victorian Energy and Resources Minister Peter Batchelor said the state's commitment made the project a "stand-out" for funding from the commonwealth's Solar Flagship Program.

Federal Resources Minister Martin Ferguson said the TRUenergy project was one of four photovoltaic projects short-listed in May for funding under the federal government's Solar Flagships Program, which was slashed by \$220m during the election campaign to pay for other climate initiatives.

Mr McIndoe estimated the TRUenergy plant would avert the emission of 11 million tonnes of carbon dioxide over its 20-year lifespan.

Meanwhile, the West Australian government announced it would foot one-third of the bill for a grid-connected solar power plant in the state's mid-west.

Speaking at the annual Energy in WA Conference, Energy Minister Peter Collier announced a \$58m solar photovoltaic energy project in Geraldton, with BP Solar partnering with Verve Energy.

The project would generate up to 10 megawatt hours of electricity each year, deliver a long-term supply of clean energy to communities around Geraldton and contribute to the government's 20 per cent renewable energy target by 2020.