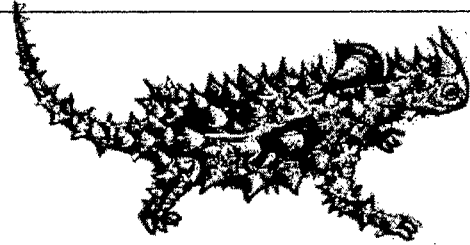


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Submission to House of Representatives Standing Committee on Industry and Resources Inquiry into Developing Australia's Non-Fossil Fuel Energy Industry

Dear Sir/Madam,

Thank you for the opportunity to provide comment to this Committee. The Arid Lands Environment Centre (ALEC) is a community based 'not for profit' association that investigates, networks, informs, advocates and acts on environmental and sustainable development issues applicable to the arid zone and desert communities. With 25 years history in central Australia, we are the nation's leading proponents of healthy futures for arid lands and people.

We have provided comments on the terms of reference. At the outset, however, we must express our confusion with the titling of this Inquiry as "non-fossil fuel energy industry" instead of clearly saying it is about uranium. We are concerned that this terminology represents an attempt to 're-badge' uranium mining as the solution to fossil fuel based carbon emissions – a claim which is strongly disputed in this submission and elsewhere. Can the Honorable members of the Committee provide an explanation as to why these terms have been used and justify the use of such terms in the delivery of an impartial Inquiry?

Is the Committee truly concerned with non-fossil fuels **other** than uranium? Could you please provide a proposed list of non-fossil energy sources before the Committee, and timelines for those investigations?

The question of radioactive proliferation demands strict application of the precautionary principle. The toxic byproducts from a nuclear energy industry will remain lethal for longer than any election cycle in human history. Climate-change induced ice ages will come and go, deep repositories will be thrust into mountain ranges, the Hansard will break back down into primeval mud, and whatever creatures have emerged as the peak custodians for this amazing planet in 200,000 years will have invented a term that roughly translates as "sickness country" to identify the inexplicably deadly zones scattered around the Earth's surface...all from the decisions we're making today to satisfy a monochromatic view of "building the nation's wealth".

There is no guarantee of the stability of uranium markets and there is no guarantee that Australian uranium stays out of a nuclear weapon. Nuclear power is not safe to operate, nor do we have any solutions to an already growing waste crisis. Critically, the huge investment required for nuclear power commits the world to an expensive and risky energy strategy whilst drawing resources away from better options. We find that the history of government regulation of uranium mining in Australia does not inspire confidence that the public interest will be served. On this last point we hope to be proven wrong.

We implore you to act with caution, integrity, and strength: leave the stuff in the ground.

Kind regards,

John Brisbin, Coordinator

Comments to the Terms of Reference

1. Global demand for Australia's uranium resources and associated supply issues

The strong world market price for uranium has acted like a hot poker on the imaginations of resource speculators in recent months, and has apparently been sufficient to get the uranium-mining question squarely back onto the political agenda. We see nothing but short-term opportunism in this development.

There is no shortage of uranium therefore Australia has no "throttle" on the market value of that resource. This is evidenced by the strong arguments of the Uranium Information Centre:

Numerous economists (Tilton, 2002) have studied resource trends to determine which measures should best reflect resource scarcity. Their consensus view is that costs and prices, properly adjusted for inflation, provide a better early warning system for long-run resource scarcity than do physical measures such as resource quantities. (<http://www.uic.com.au/nip75.htm>)

The UIC has done a credible job of outlining the generalised process by which supply continuously satisfies market demand for minerals. Reserves are no guarantee of wealth: quite the opposite. There are any number of developments that can significantly **devalue** the expected wealth of the raw reserves Australia sits upon.

If we take resource quantity out of the picture, and admit that simple market mechanisms drive resource prices, then speculation about untold billions of dollars lying below our remote red sands becomes just so much beat-up. There is very little bankable value in the simplistic observation that Australia has 30% of the world's currently known high-value ore. In another year of high prices, we could find ourselves number 2 or 3 on the list, entire new markets could open, or the technologies for re-using fuels may have improved many-fold. At any moment the entire nuclear power project may once again fall on its face due to any number of reasons...another Chernobyl style incident could put uranium prices back down for another decade or two.

Given the uncertainties inherent in playing the resources market, we strongly recommend that any statements or expectations about the "public benefit" to be derived from exploiting uranium reserves must couched in the most realistic of terms. For example, accompanying any promise of jobs or tax revenues should be the proviso that "We cannot depend on this variable source of wealth to power our core health, education, and environmental programmes;" and "We do not know how long the income from these reserves will last;" and "We are unable to provide accurate cost/benefit arguments because we cannot quantify either costs or benefits in any meaningful way."

2. Strategic importance of Australia's uranium resources and any relevant industry developments

The chief strategic opportunity for Australia is to undertake a remarkable act of global leadership and to leave the uranium in the ground. Notwithstanding arguments about alternative supplies above, we note that if the nuclear power industry can be held in check for a few more years it is quite likely that global circumstances will have changed so radically that the entire energy paradigm will have moved on, making the nuclear power question irrelevant.

In the meantime, there is no question that the simple decision to mine uranium is the equivalent of opening Pandora's Box even wider than it already is. There is no way to turn back the clock, but we can indeed make things worse. Here are four aspects of the strategic role that Australia's uranium can play:

Non-proliferation

The idea that Australia can guarantee that its uranium is only ever used for peaceful purposes is patently false. No treaty or safeguard process has ever proven to be leak-proof. The enormous scandal of Pakistan's supply of weapons technology and enrichment equipment happened under the IAEA's nose; the US admits that Iraq,

Iran, North Korea and Libya have all been developing their nuclear weapons programs while being inspected by the IAEA; the list goes on. In any event it is obvious in absolute terms that more enriched uranium in the world means more opportunity for proliferation.

Note that the question of non-proliferation is not satisfied in any way by Australia deciding to take on enrichment or extended fuel lifecycle management. Australia surely would be in no better position to offer an "ironclad" non-proliferation guarantee than that offered by the most powerful nations on earth. The argument that international safeguards prevent diversion of Australian uranium into weapons is specious. If Australia supplies uranium, this at least allows diversion of other supplies of uranium into weapons programs.

Indeed, the problem of proliferation is inherent in the arguments of industry proponents who want to re-process spent fuels to recover useful elements. In the most up-to-date reprocessing plants ever built (currently being commissioned in Japan at Rokkasho-Mura), an accountancy level of 99% is being promised. That is, the operators guarantee to within 1% that all of the material (such as weapons-grade plutonium) received by the plant is accounted for. At that rate of assurance, this one facility alone will provide enough "missing" material to power a nuclear weapon every month. And this is the **best** that the industry can offer...

Hazards of operation

Even if 100% of Australia's uranium managed to stay associated with non-weapons applications, the spectre of catastrophic failure still looms large. Strategically, we would say that by keeping Australia's uranium in the ground we are giving the world relief from yet another accident waiting to happen.

Some have argued that casualties from nuclear accidents are largely theoretical, while death and disease from coal and carbon fuels are real. We agree entirely that the current situation is tragic. However, the answer is to intelligently cut back on carbon fuels, not promote yet another deadly technology as a replacement risk.

The hazards of operation accrue at all stages of the nuclear chain from mining to waste management. Working reactors and reprocessing plants are the most hazardous. The danger also impacts on the environment as well as workers. (E Cardis, M Vrijheid, M Blettner et al. 2005, Garwin 2001, Green 2005, National Academy of Sciences 2005)

Consider this scenario: If all of Australia's currently known uranium riches were to be used in nuclear power plants at current rates of consumption, we would be responsible for another 4,200 reactor-years of operation. With current failure rates, that would practically guarantee that Australian uranium is responsible for two more Chernobyls (Fetter, 1999. Ansolabehere et al., 2003.). Given the Australian Prime Minister's enthusiasm for a Chinese uranium trade deal, we could count on those accidents being much closer to home.

Waste issues

There's no need to catalogue the alarming story of nuclear waste here. What we wish to emphasise, however, is the unavoidable connection between "exploiting" uranium reserves as if they are just another mineral ore, and the simple fact that there is no way to responsibly manage the lethal afterglow of uranium once it has been used for its intended purpose.

If this Standing Committee chooses to place the waste question outside its consideration, it will be committing an astonishing act of intellectual and moral turpitude. The strategic importance of Australia's uranium reserves is implicitly connected with the strategic crisis of mounting nuclear waste reserves around the world. As long as there is no acceptable method for disposing of uranium, no responsible government should permit its further development. A quick review of developing legal opinion favouring "extended producer responsibility" should be sufficient to give caution to anyone who thinks we can guiltlessly "shovel and sell" with no care for future liabilities.

Sunk opportunities

A third great strategic issue associated with Australia's uranium is the contribution we can make by leaving enormous capital reserves available for alternative energy solutions. Once Australia opens the gates to "unlimited" nuclear fuel, we will have made a terrible contribution to the establishment of a very expensive energy industry. As investment dollars and public funds flow into nuclear projects, we will become increasingly unable and unwilling to develop more intelligent energy futures.

3. Potential implications for global greenhouse gas emission reductions from the further development and export of Australia's uranium resource

It is the view of the Arid Lands Environment Centre that there is practically no value in Australia's uranium resource as a component of greenhouse gas (GHG) abatement.

In the first instance, the act of mining and refining will directly contribute to our domestic GHG production.

Secondly, nuclear power accounts for only about 18% of world electricity production (IAEA, 2000), and electricity in total is only associated with about 30% of anthropogenic GHG releases. Some estimates show that once high-grade fuel ores are depleted, the carbon-intensive energy to extract and refine uranium starts to significantly offset the "clean" energy produced during a reactor's lifetime (van Leeuwen and Smith, 2004).

Even if 500 new power plants were added to the current 420 in the next 35 years (a feat that would require several trillion dollars of investment and an untold quantity of human capital), the entire impact of the nuclear power experience would be to reduce total anthropogenic GHG emissions by something in the range of 5% (in Green, 2005). This reduction is almost irrelevant, *whereas the trillions of sunk capital would practically guarantee no other mitigation or adaptation strategies could be funded.*

4. Current structure and regulatory environment of the uranium mining sector (noting the work that has been undertaken by other inquiries and reviews on these issues).

The obvious point to be noted is that, in the history of this debate, the power of a small, well capitalised lobby group continues to have the capacity to drive decisions over the determined objections of the larger community. Regardless of the inquiries and reviews of the past, we point out that:

- The general community has consistently shown its desire that uranium mining be slowed, or halted, yet with enough money in the right hands the "debate" resurfaces regularly;
- History does not inspire confidence in the ability of governments to regulate uranium mining in the Public Interest. For example, the Olympic Dam mine enjoys a range of exemptions from the South Australian Environmental Protection Act, the Water Resources Act, the Aboriginal Heritage Act and the Freedom of Information Act. (ACF, 2005.) A 2003 Senate inquiry into the regulation of uranium mining in Australia reported "a pattern of under-performance and noncompliance", it identified "many gaps in knowledge and found an absence of reliable data on which to measure the extent of contamination or its impact on the environment", and it concluded that changes were necessary "in order to protect the environment and its inhabitants from serious or irreversible damage". (Senate References and Legislation Committee.)
- Traditional owners like those near the Ranger Uranium Mine are nearly unanimous in their rejection of the "benefits" that mining has brought to their people (Margarula, 2005)...and yet with enough money applied in the right places, certain "representative" groups such as the Northern Land Council can be persuaded to support further mining development;

- The desire to conserve resources while still living rich and meaningful lives is stronger than ever (Hamilton, 2005), yet the representative process of government increasingly acts as the narrow instrument of consumption-dependent commercial interests.

Given this context, we have no comment on the frustrating attempts to regulate mining or govern the development of uranium resources through any government instrumentalities. This despair does not, however, prevent us from spending our time and energies in providing submissions on matters of public import to Committees such as your. Perhaps this commitment of optimism will be reciprocated.

Conclusion

We recognise that this Committee's investigation has been deliberately set to a myopic focus, and is fundamentally biased toward "developing" Australia's uranium ores in a very commercial sense. That's just the politics of the day. And yet we must take this opportunity to beg the Committee to look a fraction more broadly, to consider a few decades past this week's spot market fever, and make its recommendations to Government according to the precautionary principles that will keep us on a wiser course to the future.

Australia is already a rich country. We are under no dire economic threat that demands a hasty, uncritical expansion of uranium mining. Besotted by the prospect of a few billion dollars in easy cash, the industry has not presented a single convincing argument to justify its activities other than, in summary, "there's money to be made today." Seldom has that argument, on its own, delivered any lasting benefit to our species. In the case of uranium and its role in the nuclear cycle of insanity, the need for utmost caution has never been more justified.

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