Submission No 15

INQUIRY INTO URANIUM MINING AND NUCLEAR FACILITIES (PROHIBITIONS) REPEAL BILL 2019

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THE NUCLEAR POWER CHALLENGE IN NEW SOUTH WALES – BUILDING TRUST

Introduction

Neither Australia nor New South Wales will be able to develop a nuclear energy industry unless the people trust it and the governments, the institutions and the laws that support a nuclear industry.

In the context of the Inquiry into the Uranium Mining and Nuclear Facilities (Prohibitions) Repeal Bill 2019, the purpose of this submission is to outline a New South Wales government strategy to test the support of the people of New South Wales for a nuclear power industry in their State.

Without the trust and support of the people of New South Wales, it is unlikely that any nuclear power facilities could be constructed there.

The submission will also argue for the removal of the prohibition on uranium mining in New South Wales.

There is a rational basis for nuclear fear and it cannot be overcome by the wider and wiser collection and dissemination of facts or by fact-based national debates or inquiries.

The crucial understanding to emerge from global efforts to expand nuclear power facilities and industries is that building trust is the pre-eminent requirement. Nuclear fear can only be addressed by building trust and then nurturing it.

This submission draws on the author's experience as the Chief Executive Officer of the Australian Uranium Association, the advocacy body for the Australian uranium industry between 2006 and 2013.

The uranium industry won the debate over its existence and acceptance in the Australian mainstream, partly because it shifted its activities from just distributing facts about uranium mining to engaging empathetically and candidly with its stakeholders and building trust through its behaviours.

The industry also benefitted from bipartisan political leadership in support of the industry.

The submission highlights the importance of trust and the measures and actions that need to be taken to build it.

Preliminary matters

Without the removal of the ban on nuclear power currently sanctioned by Commonwealth law, the removal of the ban in NSW will make little practical difference to the aspiration to nuclear power.

However, the removal of the NSW ban would signal a greater political willingness to consider nuclear power possibilities for Australia. A demonstration of greater political willingness in NSW could help shape the consideration by the Commonwealth of its ban.

Regarding uranium mining, the national bipartisan political support for uranium mining and the experience of the last decade when a significant number of uranium mines gained environmental approval under Commonwealth and State laws has led to the mainstream acceptance of the uranium mining in Australia. There is little reason to believe that acceptance does not exist in NSW.

Accordingly, it is submitted that, whatever is the outcome of the consideration of the nuclear power ban, the uranium mining ban can be lifted with the likely acceptance of the people of NSW. The Committee might, however, care to consider the trust-building strategies outlined in this submission should it believe that the uranium industry does not yet have the sufficient confidence of the people of NSW.

The political leadership that led to the mainstreaming of the uranium industry is considered in this submission. The lessons from that development can guide the strategy for a NSW government that seeks to repeal the uranium mining ban.

Trust

It is a common belief that the wider and wiser distribution of facts about nuclear power combined with exposure of the many flaws in and weaknesses of the anti-nuclear case will give rise to 'rational' judgement by the community that will enable the development of a nuclear industry proceed.

It is a mistake to believe this.

It is quite rational for people to be sceptical and opposed to the nuclear industry even if they have all 'the facts'. Opposition to nuclear power is often based on a personal risk assessment that the benefits of nuclear power are small when compared to its risks. Scepticism and opposition are the rational positions to take once such an assessment is made.

Facts by themselves will not overcome the lack of trust that accompanies scepticism and opposition.

Support for nuclear power varies over time and by age, demographic and location. Changes in support for nuclear power over time do not vary because 'the facts' change – 'the facts' are more or less the same from one time period to the next. Support varies with the level of trust in nuclear power, including trust in the technology and its safety, trust in large corporations, trust in governments, trust in experts, trust in evidence.

Only trust will provide the basis for a compelling, countervailing rational assessment that supports a nuclear industry.

Building trust in a nuclear industry is a task beyond mere words. It requires concerted action consistent with a candid depiction of the nature of the nuclear industry, its technology and its risks and benefits. Building trust will take time.

The scope of trust-building encompasses political leadership and trust building activities by all parties in the nuclear fuel cycle.

Risk perception and the nuclear industry

Paul Slovic has been one of the key researchers on risk perception. His work has been heavily focussed on the nuclear industry.

Sarah Gorman has summarised his work[1]:

> Early research on risk perception assumed that people assess risk in a rational manner, weighing information before making a decision. This approach assumes that providing people with more information will alter their perceptions of risk. Subsequent research has demonstrated that providing more information alone will not assuage people's irrational fears … Paul Slovic examines the particular heuristics and biases people invent to interpret the amount of risk in their environment.
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> … Slovic emphasizes the essential way in which experts' and laypeople's views of risk differ. Experts judge risk in terms of quantitative assessments of morbidity and mortality. Yet most people's perception of risk is far more complex, involving numerous psychological and cognitive processes…
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> Slovic … focuses … on … the "psychometric paradigm"…(which) attempts to quantify perceived risk using psychophysical scaling and multivariate analysis … (and)… identify the qualitative characteristics that lead to specific valuations of risk. …People tend to be intolerant of risks that they perceive as being uncontrollable, having catastrophic potential, having fatal consequences, or bearing an inequitable distribution of risks and benefits. Slovic notes that nuclear weapons and nuclear power score high on all of these characteristics. Also unbearable in the public view are risks that are unknown, new, and delayed in their manifestation of harm…The higher a hazard scores on these factors, the higher its perceived risk and the more people want to see the risk reduced…
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> (Slovic's) article calls for assessments of risk to be more accepting of the role of emotions … Rather than simply disseminating more and more information about, for example, the safety of nuclear power, experts should be attentive to and sensitive about the public's broad conception of risk.

At least five important policy guidelines can be drawn from Slovic's work:

[1] http://scienceblogs.com/thepumphandle/2013/01/16/how-do-we-perceive-risk-paul-slovics-landmark-analysis-2/

- More information won't alter perceptions of risk no matter how solid the information and regardless of how the perceptions were arrived at in the first place
- People are less tolerant of risks they perceive to be uncontrollable, of catastrophic potential, fatal and inequitably distributed. Nuclear power scores a psychometrically measured high on each of these benchmarks
- Experts won't influence non-experts whose risk profile is informed by these perceptions
- There is a suite of psychological characteristics that make risks feel more or less frightening, the facts notwithstanding
- The emotional basis of people's risk perceptions should be accepted as rational and ways found to engage them other than by decrying their views as willful ignorance.

The more popular and accessible work of David Ropeik[2, 3] has also summarized the literature on risk perception:

- Neuroscience has shown that humans respond initially to risky stimuli subconsciously and instinctively, before cognition kicks in. The brain is, apparently, designed to feel subconsciously first and think consciously second; and to feel more and think less.
- We subconsciously use heuristics – mental short cuts to make rule-of-thumb decisions - and biases to quickly make sense of partial information.
- Our views on risks are shaped to agree with those we most strongly identify with, based on our group's underlying feelings about how society should operate.

Ropeik says that[4]

> We fall into four general groups about the sort of social organization we prefer, defined along two continua, represented as a grid. We all fall somewhere along these two continua, depending on the issue.
>
> Individualists prefer a society that maximizes the individual's control over his or her life. Communitarians prefer a society in which the collective group is more actively engaged in making the rules and solving society's problems … Along the other continuum, Hierarchists prefer a society with rigid structure and class and a stable predictable status quo, while Egalitarians prefer a society that is more flexible, that allows more social and economic mobility, and is less constrained by 'the way it's always been'.
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> … the robust evidence summarized above makes clear that:

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[2] See, for example, David Ropeik, *How Risky Is It, Really?: Why Our Fears Don't Always Match the Facts*, McGraw Hill, 2010

[3] See also www.blogs.nature.com Soapbox Science, *Risk Perception*, David Ropeik, 11 May 2011, accessed 18 April 2016

[4] http://blogs.nature.com/soapboxscience/2011/05/11/risk-perception

1. Risk perception is inescapably subjective

2. No matter how well educated or informed we may be, we will sometimes get risk wrong, producing a host of profound harms.

3. In the interest of public and environmental health, we need a more holistic, and more realistic, approach to what risk means…

Letting go of our naïve fealty to perfect reason will allow us to recognize and understand these hidden dangers…The challenge is to rationally let go of our irrational belief in the mythical God of Perfect Reason, and use what we know about the psychology of risk perception to more rationally manage the risks that arise when our subjective risk perception system gets things dangerously wrong.

Ropeik makes clear that a flight response to fear – which is essentially what rejection of the nuclear fuel cycle is – is a basic outcome of human evolution to which the facts alone are not an antidote.

Ropeik reinforces the conclusion to be drawn from Slovic about accepting the emotional basis of risk perception.

Moving towards trust

Reflecting on both Slovic and Ropeik, the question to ask is: what could overcome the negative perceptions some people have of industrial activities such as nuclear power when facts and experts cannot convince them and when they were more likely to respond – rationally - to their fearful conclusions than anything else?

The answer is to be found in the emotions, not in facts alone: the antidote to fear is trust; trust is not given in response to promises but in response to behaviour.

Accordingly, if the nuclear industry is to acquire the support of its stakeholders, and mainstream and normalise its life in the community, it – and the governments, institutions and laws that support it - will have to overcome fear by gaining trust through behaviour.

People will not trust nuclear power because its spokespeople or politicians or experts tell them how technically capable and caring it is and how successful it has been at managing the risks that people associate with it.

A nuclear industry in Australia will have to demonstrate technical competence and to talk about it. But that will not be enough. Governments will have to demonstrate fit-for-purpose legal and environmental frameworks and institutions for nuclear power. But that will not be enough either.

The industry and governments will have to acknowledge, and talk about the fears people have, respect the fears and not trivialize them, be humble, acknowledge possible exposures

without defensiveness or deflection and plan behaviours and activities so they are aligned with these aspirations.

There will be a large emotional and historical barrier to overcome if Australia or New South Wales went down this track. Rather than 'control the narrative', an Australian nuclear industry and supportive governments will have to see their task as enabling Australians to make up their minds and to provide the facts and the behaviours that will help them do so.

This is a risky, counter-intuitive and challenging route that will require a strategic effort to win trust by fashioning language, demeanour, symbols and behaviour over an extended period of time. Acknowledgement that this course might fail to garner sufficient support for a nuclear industry is an essential admission that demonstrates the integrity of the process of building trust.

The Committee should satisfy itself that, at least, New South Wales is up to these tasks.

Political leadership

The uranium industry benefitted from the leadership and support of both major political parties:

- The initiative of Martin Ferguson who worked towards a change of ALP national policy on uranium mining
- Kim Beazley who positioned the ALP for change as Leader of the Opposition and championed the change within his Party
- John Howard and Ian Macfarlane established the Switkowski review of uranium mining and nuclear power, shouldered the political risk of supporting the uranium industry and allowed uranium projects to be assessed under the EPBC Act
- Kevin Rudd's and Mike Rann's leadership of the ALP's policy change at the 2007 ALP National Conference
- Peter Garret's and Tony Burke's dispassionate decision-making in applying the EPBC Act to uranium proposals
- Julia Gillard's support for the uranium industry after Fukushima and her decision to export uranium to India.

Political leadership for uranium mining has also been evident, though not consistently, by governments of Western Australia, South Australia, Queensland, the Northern Territory and, regarding uranium exploration, in NSW.

By the end of 2011, the 40-year Australian uranium debate was over and uranium had entered the economic and political mainstream, thanks partly to political leadership.

Notwithstanding the impact of the Tohoku tsunami on Fukushima and the environmental, human, economic, social and political consequences of that accident locally and globally, the Australian uranium industry continues to have the political support of both major parties.

Without that support, the industry would face more significant barriers to its continued development than those posed by the poor economic environment for uranium.

Instead, the uranium industry has all but disappeared from national political debate. It is no longer an issue of much political or public consequence and this is unlikely to be reversed.

The surest way, however, to prevent an Australian nuclear industry from exploring its potential is for one of the major political parties to oppose it.

Apart from the difficulties that will create in removing the legislative ban on nuclear power, lack of bipartisanship will be a major barrier to growing trust in the industry. Lack of bipartisanship from political leaders will be a clear signal to the community that the nuclear industry is not to be trusted. Without trust, growing the industry will face serious difficulties, even if it were permissible under law.

The current political situation is that the ALP is opposed to nuclear power, not just in principle but with the active and enthusiastic participation of its Parliamentary Leader and some of its leading figures. In response, the Coalition is reluctant to take measures that would enable a nuclear industry to begin, fearing the ALP will make political gains at its expense.

Bipartisanship is the best political strategy for giving an Australian nuclear industry a chance. The best strategy for stopping it in its tracks is for the ALP to withhold its support.

How should New South Wales proceed?

There are three initial questions for the Committee to consider

- What is the real task to be tackled in building a nuclear power industry?
- How can 'the real task' be embedded in the thinking of policy makers?
- Once those questions have satisfactory answers, what development strategy then follows?

Facts are the essential starting point for informed decisions on any significant public policy or infrastructure question and supporters of nuclear power must always have all the facts. They can also never afford to be wrong. But just supplying more or 'better' facts is not likely to overcome the trust deficit.

A different strategy is needed.

The antidote to fear and distrust is love or, at least, respect.

Gaining people's respect is not a matter of what is said to them; it can only be accomplished by trust-building behaviours.

Behaviour communicates one's real values and intentions much better and more credibly than what one says. It follows that designing behaviours to create trust is a critical strategic activity.

The behaviours must be a reflection of real values and not just a construct that treats people as instrumental. People are very good at detecting gaps between behaviours and real values. Accordingly, a critical piece of work is to examine the values that will need to be brought to the task of building trust.

The task is not to *persuade* or *advocate* but to build *trust*. Building trust is primarily a *behavioural* activity, not a *communications* activity (though using communications strategies to draw attention to the trust-building behaviours is feasible, if carefully managed).

It would also be a mistake to construct a behavioural strategy with the aim of building a nuclear power industry. Trust cannot be built on the basis that 'we are trying to build trust so you will support a nuclear power industry'. Such a starting point is the antithesis of trust.

The aim of a trust-building strategy should be to enable people to make up their own minds. Clearly, this approach anticipates that people may well make up their minds to oppose nuclear power. Those with a strong belief in the energy and climate change benefits of nuclear power may find this a challenging possibility. But unless the trust-building task is approached in that way, it will likely fail.

This does not mean that advocates for nuclear power have to abandon their support in favour of an agnostic position. However, acknowledging publicly that that support does not detract from the integrity of the aim of enabling people to make up their minds – and behaving accordingly - is essential to building trust.

The strategy for evaluating the support for a nuclear power industry is to identify the necessary trust-building behaviours and carry them out; and to engage with the community to discover whether the necessary trust is emerging.

Embedding 'building trust' in the government's thinking as the necessary strategy to enable people to make up their minds should be the starting point.

The task is not to build nuclear power plants but to build trust.

A sensible opening position for any government convinced of the need for trust is:

- We will not create the conditions for a nuclear power industry unless the people of NSW trust it and support it
- We will not proceed from one stage to another unless there is trust and support
- We will not force any nuclear facility on any community and we will not allow any step to be taken that is not in the interests of the communities concerned.
- Any nuclear development must not foreclose on any other community, industry, economic or infrastructure development.

Several actions will be needed to begin building trust:

- Establish a policy advisory function in NSW, with the necessary people, structures and systems, to advise government on the activities it should undertake to enable the people of NSW to decide about nuclear power, with *people deciding* the key aim
- Expand the 'trust' analysis as a basis for action by drawing on NSW, Australian and global experience and the available research; understand why people 'dread' the nuclear fuel cycle and use the analysis to inform the behaviours of the authority and the governments it advises
- Begin to identify how to recognise when 'trust' emerges and what constitutes 'social consent'
- Identify the opinion leaders who matter to social consent – both for and against – and engage them
- Expand the engagement gradually to the whole community
- Identify strategies to build trust
- Establish governance that keeps strategy on track
- Commit to this approach for several years initially and review the status of trust-building before proceeding further.

The overarching demeanour of the government and the authority should be sceptical, disinterested and open-minded. The government should not engage in nuclear advocacy.

Any nuclear project, whether the trust-building one described here or something more concrete, is dependent on the position of the Australian Labor Party. Accordingly, the initial task is to expand the political support for the strategies outlined above. Without some bipartisanship between the two major political parties - that trust is the key issue – any progress is doomed.

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