

Submission to the Inquiry into Nuclear Non-proliferation and Disarmament

As I wish to get to the base problem of the nuclear weaponry issue- that being the acquisition of uranium in the first place, I have chosen to extend my submission into the area of uranium use for nuclear power. I believe nuclear power is currently being strongly considered as a new driving-force behind the re-powering of Australia in the light of climate change. With more uranium production and greater sources to draw from, I fear there will also be a greater acceptance of nuclear weaponry. This obviously is not a path we should be taking. I shall later point out why and demonstrate with careful planning what we should do to avoid this fate and instead create a better world for all.

I shall begin my submission by suggesting what I believe are appropriate steps to Nuclear Disarmament and Non-Proliferation

1. A Nuclear Weapons Convention is a clear path to disarmament and Australia must advocate for commencement of negotiations towards a Convention. The International Commission on Non Proliferation and Disarmament provides a key opportunity to promote a Nuclear Weapons Convention.
2. Australia must encourage the ratification of key treaties. The most essential is gaining the outstanding signatures to bring the Comprehensive Test Ban Treaty into force. Support of Nuclear Weapon Free Zone treaties by Nuclear Weapon States is also vital.
3. Australia must review its uranium export agreements in light of nuclear weapons proliferation risks and act to reduce these risks.
4. Australian treaties should not allow use of Australian facilities in the US Missile Defence program
5. -As per the recommendations of the **UN Expert Group on Disarmament and Non-Proliferation Education** the Government must actively support peace and disarmament education.

- Australia should stop its contribution to the global nuclear chain by phasing out mining and export of uranium.

- Australia should not export uranium to China. On such a serious matter as proliferation of nuclear weapons, China's poor non-proliferation record and lack of transparency – and indeed active contribution to horizontal nuclear proliferation – warrants the

disqualification of China as an appropriate recipient of Australian uranium on these grounds alone.

- Massive resources and government support in Australia and China, as elsewhere, should be directed as an urgent priority to research, development and deployment of safe and renewable sources of energy, in combination with improved efficiency of energy use; and not to nuclear power. China has made clear a substantial financial and planning commitment to developing renewable energy technologies over the coming decade, and should be encouraged to replace their plans for nuclear power with an expanded commitment to energy efficiency and deploying a mix of renewable energy sources.

- IAEA safeguards should be strengthened through universal, mandatory and permanent application, including the full application of Additional Protocols, to Nuclear Weapon States including China, to the same degree as to Non-Nuclear Weapon States.

- Australia should withdraw from agreement to export uranium to Taiwan and fully enforce and maintain restrictions against nuclear trade including uranium sales to any non-NPT signatory entities, including India, Pakistan and Israel.

- Proposed administrative arrangements to enact the Australian bilateral safeguards agreement with China should be made public and be subject to parliamentary scrutiny as part of the process of formal consideration of the proposed Nuclear Cooperation Treaty with China.

- The Australian Government should withdraw consent in existing bilateral treaties, and not provide any future agreements or consent, including to China, for reprocessing of Australian Obligated Nuclear Materials or for any use of such materials in mixed oxide (MOX) or other plutonium-based fuels.

- Australia should require verifiable cessation of production of missile material and support for a Fissile Materials Cut-Off Treaty that prohibits reprocessing and the separation of weapons-usable fissile materials, from all countries with which Australia currently has bilateral nuclear cooperation agreements.

- Application of IAEA safeguards should be extended to fully apply to mined uranium ores, to refined uranium oxides, to uranium hexafluoride gas, and to uranium conversion facilities, prior to the stages of enrichment or fuel fabrication.

- Australia should not enter into additional bilateral agreements allowing for conversion and enrichment of Australian uranium in countries, including China and India, where such safeguards arrangements are not in place.

- Australia should withdraw uranium sales from all Nuclear Weapon States that have breached their non-proliferation obligations, or continue to fail to comply with their nuclear disarmament obligations under the Non-Proliferation Treaty, and that fail to ratify

and abide by the Comprehensive Test Ban Treaty including verifiable closure of nuclear weapons testing facilities.

Eight of the many reasons why nuclear power is not the answer to our future problems:

1. Length of time to come on stream

Commissioning and building new plants is a time-consuming business (at least twenty years), so they would have little or no impact on cutting emissions over the next twenty years, nor would they build any resilience* in the face of peak oil and climate change.

2. Insurance

The insurance industry refuses to underwrite nuclear power, a gap it looks like the government will have to fill, resulting in a huge invisible subsidy of nuclear power.

3. Waste

Nuclear waste is a huge problem. The UK alone has 10,000 tons of nuclear waste, a pile which will increase 25-fold when the existing plants are decommissioned, with no solution in sight other than deep burial. Australia will be facing similar problems. The disposal of nuclear waste requires a great deal of embodied energy, including that in the materials used to maintain the disposal facilities (i.e. concrete and steel). It is often said that nuclear waste has a half-life of 100,000 years (It is often worth remembering that Stonehenge was built only 4,000 years ago, the Egyptian pyramids were built 4,600 years ago and the aboriginal people of Australia have been inhabiting the our great land for approximately 40,000 years. None of these come close to the nuclear half-life.

4. Cost

A new programme of nuclear power would be staggeringly expensive. Amory Lovins has calculated that 10 cents invested in nuclear energy could generate 1kw of nuclear energy, 1.2-1.7kwh windpower, 22-6.5kwh small cogeneration, or 10kwh of energy efficiency. Also having sufficient money to invest so unwisely assumes an economy which is still growing, an increasingly unlikely prospect.

5. Peak Uranium

At the moment, there are about 60 years' worth of uranium left. However, if electricity generation from nuclear grows steadily, this figure will fall, to the point where if all the world's electricity were generated with nuclear, we'd have around 3 years supply left.

6. Carbon Emission

Nuclear is often said to be a carbon-free way of generating electricity. While that may be true for the actual generation, it is not when the entire process is looked at. The mining, processing, enrichment, treatment and disposal all have significant impacts, equivalent to around one-third those of a conventional-sized gas-fired generating plant.

7. Safety

There is increasing recognition of the fundamental flaws and limitation of the international nuclear safeguards system. While there is much that can be done to improve this system, fundamental flaws and pervasive interconnections between civil and military applications of nuclear technologies and materials mean that the most responsible position is to phase out uranium mining and export of uranium, and globally wind down involvement in the nuclear industry.

8. Mining

More uranium means increased destruction to the environment from mining. As uranium stocks from current mines are depleted we will eventually see more and more of our precious land and eco-systems destroyed from establishment of new sites. Like the Jabiluka mine, this cannot and should not ever go ahead.

* In ecology, the term resilience refers to an ecosystem's ability to roll with external shocks and attempted enforced changes. Walk et al. define it thus:

“Resilience is the capacity of a system to absorb disturbances and reorganise while undergoing change, so as to still retain essentially the same function, structure, identity and feedbacks.”

Local Resistance and Transition Initiatives:

The solution to dwindling energy and resources, climate change, crumbling societies, environmental destruction, the current financial crisis and more:

We cannot adequately address the challenges to the above mentioned without also addressing the need to rebuild local resistance, to create local economies capable of supporting us in a post peak-oil and peak-uranium world. Just cutting carbon emissions, although deeply urgent, is not enough on it's own. Just switching to another finite resource should be avoided at all cost.

Transition Initiatives are an emerging and evolving approach to community-level sustainability which is starting to appear in communities the world over. They are, to use a term coined by Jeremy Leggett, “scalable microcosms of hope”.

Transition Initiatives are based on four key assumptions:

1. That life with dramatically lower energy consumption is inevitable, and that it's better to plan for it than to be taken by surprise.
2. That our settlements and communities currently lack the resilience to enable them to weather served energy shocks that will accompany peak oil (and peak uranium should we take that path)
3. That we have to act collectively, and we have to act now.
4. That by unleashing the collective genius of those around us to creatively and proactively design our energy descent, we can build ways of living that are more connected, more enriching and that recognise the biological limits of our planet.

A less energy intensive future could, if enough thinking and design is applied sufficiently in advance, be preferable to the present. There's no reason why a lower-energy, more resilient future needs to have a lower quality of life than the present. Indeed, a future with a revitalised local economy would have many advantages over the present, including a happier and less stressed population, an improved environment and increased sustainability. Andrew McNamara, Queensland's Minister for Sustainability, Climate Change and Innovation recently said:

“There's no question whatsoever that community-driven local solutions will be essential. That's where government will certainly have a role to play in assisting and encouraging local networks, who can assist with local supplies of food and fuel and water and jobs and the things we need from shops.... We will see a relocalisation of the way in which we live that will remind us not of a last century, but the one before that. And that's not a bad thing. Undoubtedly one of the cheaper responses that will be very effective is promoting local consumption, local production, local distribution. And there are positive spin-offs to that in terms of getting to know our communities better. There are human and community benefits from local networks that I look forward to seeing grow.”

You would be hard pressed to find anyone who thinks that stronger local economies, increased local democracy, strengthening local food culture and more local energy provisions are a bad idea. Most of us instinctively know that we are living beyond our collective means, and have some sense of what we need to do. Likewise, we have all seen the senseless destruction and appalling suffering caused by nuclear weaponry. We should all know by now it is completely barbaric, sub-human and unforgivable to use these arms on anyone regardless of the circumstances. Nuclear armament is the pathway to paranoia, hate, war and very possibly our own destruction. If we expect to live in a world of nuclear non-proliferation and disarmament we must accept, that we ourselves, cannot afford to possess these weapons. If we are to consider ourselves a peaceful nation then we must embrace the tools of peace, tolerance and understanding rather than harbour an arsenal of hate, death and mass annihilation.

I urge you to turn away from nuclear and do everything humanly possible to promote, encourage and support Transition Initiatives and global unity instead. Please help these ideas grow so we, the human race, can continue to grow along with them.

Areas who have already adopted Transition Initiatives include:

Australia

Sunshine Coast, QLD, [Armidale, NSW](#), [Bell, VIC](#), [Bellingen, NSW](#), [Newcastle, NSW](#), [Hervey Bay, QLD](#), [Eudlo, QLD](#), [Sydney, NSW](#), [Katoomba, NSW](#), [Wingecarribee, NSW](#), [Kenmore, QLD](#)

UK

Totnes, Penwith, Ivybridge, Falmouth, Moretonhampstead, Lewes, Stroud, Ashburton, Ottery St. Mary, Bristol, Brixton, Forest Row, Mayfield, Glastonbury, Lostwithiel, Forest of Dean, Nottingham, Wroughton, Brighton&Hove, Market Harborough, West Kirby, Whitstable, Marsden & Slaithwaite, Frome, Isle of Wight, Seaton, Bath, Exeter, [Isle of Man](#)* Canterbury, [Wolverton](#), [Leicester](#), [Westcliff-on-Sea](#), [Isles of Scilly](#), [Liverpool South](#), [Norwich, England](#), [Tring](#), [Credon](#), [South Petherton](#), [Chichester](#), [Berkhamsted](#), [Coventry](#), [Bungay](#), [Mersea Island](#), [Maidenhead](#), [Ladock & Grampond Road](#), [Leek](#), [Horsham](#), [Exmouth](#), [Buxton](#), [Tynedale](#), [Dorchester](#), [New Forest](#), [Stafford](#), [Chester](#), [Cambridge](#), [Hereford](#), [Buxton](#), [Kingston-upon-Thames](#), [Taunton](#), [Langport](#), [Sidmouth](#), [York](#), [Louth](#), [Ely](#), [Sampford Peverell](#), [Tunbridge Wells](#), [Hastings](#), [Newton Abbot](#), [Belsize](#), [London](#), [High Wycombe](#), [Lancaster](#), Bassingbourn, Leamington Spa, Sevenoaks, Chesterfield, Sheffield

* Technically a self-governing UK Crown dependency and therefore not part of the UK

Ireland -[Kinsale](#), [Kildare](#), [Kilkenny](#)

Northern Ireland -[Holywood](#)

Wales -[Llandeilo, Wales](#), [Bro Ddyfi, Wales](#), [Rhayader, Wales](#), [Presteigne](#), [Lampeter](#), [Chepstow](#), [Monmouth](#)

Scotland -[Portobello, Scotland](#), [Dunbar, Scotland](#), Biggar, [North Howe](#), [Forres](#), [Arran & Holy Isle](#)

Canada -Peterborough, ON

Chile -El Manzano

Germany -[Berlin](#), [Friedrichshain Kreuzberg](#)

Italy -Montevoglio

Japan -[Fujino](#)

Netherlands -Deventer

New Zealand -Waiheke Island, Orewa, Kapiti District, Opotiki Coast, [Nelson](#), [Whanganui](#), Brooklyn

USA -Boulder, CO, Sandpoint, ID, Ketchum, ID, Lyons, CO, Santa Cruz, CA, Montpelier, VT, Portland, ME, Sebastopol, CA

For more information on Transition Initiatives please see:

www.transitionculture.org

<http://transitiontowns.org/TransitionNetwork/TransitionInitiative>

<http://www.totnes.transitionnetwork.org/>

<http://www.energybulletin.net/node/13171>

References:

Flemming, D (2007), *The Lean Guide to Nuclear Energy: a life cycle in trouble*, The Lean Economy Connection

Hopkins, R. (2008) *The Transition Handbook: From oil dependency to local resilience*, Green Books Ltd.

(2009) *Medical Association for Prevention of War*
www.mapw.org.au/nuclear-chain/safeguards

(2009) *Transition Towns Wiki: TransitionCommunities*
<http://transitiontowns.org/TransitionNetwork/TransitionCommunities>