

Mr Jerome Brown
Secretary
Joint Standing Committee on Treaties
PO Box 6021
Parliament House
Canberra ACT 2601

20 June 2009

Dear Mr Brown

Inquiry into Nuclear Non-Proliferation and Disarmament

Recently, in a supplementary submission to this Inquiry, the Friends of the Earth made criticisms of the Association's submissions. The purpose of this submission is to address the points made by the Friends of the Earth.

FOE says the 'nuclear industry has a long history of making absurdly optimistic projections' about the growth of nuclear power.

The Association's response to this is as follows:

- The Association does not and has not made 'projections' on behalf of the 'nuclear industry'. If 'absurdly optimistic projections' have ever been made, they are the responsibility of those who made them and not of the AUA.
- The Deloitte's research modelled the impact on demand for Australian uranium of scenarios of the growth in demand for nuclear power.
- Those scenarios drew on the work of the Intergovernmental Panel on Climate Change, which estimated growth in nuclear power by 100% (indeed, by greater than 100%) by 2030.

FOE says that 'The AUA's optimism about growth in the Australian uranium industry ought to be treated with scepticism'. To support that criticism, the FOE quotes ABARE on trends in the spot price of uranium.

The Association's response to this is as follows:

- One needs to distinguish between spot prices and long term contract prices. Most of the world's uranium, about 85%, is sold via long term contracts. It is unwise to make judgements about the long term outlook for the uranium industry – or any industry - on the basis of short term movements in spot prices. ABARE does not do that.
- The FOE's views about the future of the uranium industry appear to be based on the cancellation of three reactors in South Africa, issues in the development of nuclear technology and the decision by the Obama Administration to seek an alternative to Yucca Mountain as a site for waste deposition. This is a very limited set of data on which to base an analysis of the future of the nuclear industry. The Association urges the Committee to consider all the data before it.
- For example, in contrast to FOE's assertion regarding South African reactors, ABARE reports that 'Over the next six years, 64 nuclear reactors are expected to be commissioned.' To bring the Inquiry fully up-to-date, ABARE's recent report on the outlook for the uranium industry suggests

mine production will increase by around 6% a year in the outlook period (to 2013-2014), with export earnings projected to increase to \$1.7 billion (2008-09 dollars) on the basis of higher volumes and higher unit export prices. ABARE says that 'Australian contract prices are expected to continue to increase as existing contracts...are negotiated upwards.' (*Australian Commodities*, Vol 16, No 1, ABARE, March Quarter 2009)

FOE makes a number of criticisms of the Association's submission regarding the proliferation risk concerning plutonium.

The Association's response to this is as follows:

- The Association acknowledged the risk in its submission.
- It also acknowledged the different views about the risk and suggested it was a technical issue about which the Inquiry could seek guidance from Australia's Chief Scientist (submission and pages TR 33 and 34 of public hearings)
- The Association said weapons production from plutonium produced in a commercial reactor was 'unlikely'. We stand by that assessment but, as indicated, we are prepared to consider other views.
- FOE describes the AUA's views on this issue and on others as 'demonstrably false'. 'False' means 'untruthful' or 'lying'. The deliberate use of such language appears to be an attempt by FOE to draw unfavourable conclusions about the AUA's integrity. There is no basis for that and the Committee should treat the FOE's views accordingly.

FOE says the Association 'is heavily reliant on ASNO to reach its optimistic conclusions about the use of Australian-obligated nuclear material'.

The Association's response to this is as follows:

- Yes, we are reliant on ASNO, as is every other party and the Inquiry itself.
- The AUA, every other party and the Inquiry are entitled to rely on ASNO. Its assessments throughout its existence have been accepted by the Ministers to whom it reports annually and by the Parliament in whose chambers those reports are tabled.

FOE says that the AUA argument that countries using nuclear technology illicitly will be eventually detected by safeguards arrangements or other means is 'false'.

The Association's response to this is as follows:

- FOE gives four examples of illicit activities that were eventually detected by safeguards arrangements or by other means.

FOE is critical of the Association's submission that countries in breach of their NPT obligations are dealt with in various ways, saying that the actual responses are variable and protracted.

The Association's response to this is as follows:

- By implication, FOE prefers a *uniform* response that can be taken *quickly*. It would potentially be helpful for the Committee if FOE were to outline its approach and to describe how that approach might be used now in the cases of, for example, North Korea and Iran.



FOE is critical of the AUA's submission on the lifecycle GHG emissions of electricity-generating technologies. FOE opines that, contrary to the AUA's submission – that the lifecycle emissions from nuclear power are between 3 and 40 grams of carbon dioxide per kWh - 'the Switkowski report concluded that the figure is 60 grams for nuclear compare (sic) to just 22 grams for wind power.'

The Association's response to this is as follows:

- FOE has misread the Switkowski report. At page 93 of the report, the following appears: 'Most published studies estimate that on a lifecycle basis the emissions intensity of nuclear power is between 2 and 40 kg CO₂-e/MWh'. That is the basis of the AUA's submission. The report goes on to examine 'the potential life cycle emissions of nuclear power in Australia', data which appear to be the source of the FOE's mistake. The Switkowski report's 'best estimate' of greenhouse intensity of nuclear power in Australia is 60 kg CO₂-e/MWh and 21 (not 22) for wind. Those are the figures the FOE quotes. They are not figures from studies of emissions but of a possible Australian scenario.
- The Association has recently received the most up-to-date analysis of lifecycle emissions in the academic literature and will publish that research soon.
- The analysis shows that wind and nuclear power have the same emissions over the lifecycle, about 65gCO₂/kWh_{el}.

The Association would be happy to address any issues arising from this submission.

Yours sincerely

Michael Angwin
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