

## DESERTEC-Australia

"I have very great concerns about the current fragile safety regimes (regarding nuclear power) and the porous nature of (nuclear) safeguards because of the International Atomic Energy Agency's inadequate monitoring of safety issues." Peter Garrett, Environment Minister, Australia

"The current Australian Government came to office with a new commitment to seek to be much more active... as a nation on nuclear nonproliferation and disarmament matters." Stephen Smith, Foreign Minister, Australia

"China's got rockets that can reach Sydney. India just fired a rocket that went 3,000 kilometres. And we're exporting uranium to them." Bob Brown, Federai MP, Australian Greens

"It's Asia that has the most potent latent capabilities to develop nuclear, chemical and biological weapons. That's because of the advance of their economies and industrial base." Paul Dibb, Strategic and Defence Studies Centre

Australian National University,

DESERTEC-Australia

Submission to the Parliamentary inquiry into Uranium Exports and Other Nuclear Treaties

DESERTEC-Australia believes that the issue of uranium exports misses the point. The real issue is how to gain the most value from Australia's uranium if it must be developed.

Australia should keep its uranium at home. Instead of selling low-value uranium ore overseas, Australia should enrich it, turn it into nuclear power on Australian soil and export the value added product of electricity instead and then bury the waste, 'closing' the nuclear cycle.

The benefits would be two-fold. First, and most relevant to the inquiries, is that it eliminates proliferation risk from trading in uranium with various offshore counterparties. Second, it allows Australia gain more of the value chain.

How might this be done? In this respect, DESERTEC-Australia agrees with the position taken by the Australian Society of Foreign Energy Executives (ASFEE). In a thoughtful and intellectually-provocative line of thinking, ASFEE recommends Australia locate a 'closed cycle' nuclear industry around Roxby Downs.

ASFEE's thinking is that if Olympic Dam becomes a huge uranium mine, nuclear enrichment and electricity-generation facilities could be built nearby, ideally in the Woomera Prohbited Area (WPA) where the Commonwealth could ensure security. Nuclear waste could then be buried in the WPA, where Balla Kallina already has been mooted in the past as an attractive repository for the nation's radioactive waste.

DESERTEC-Australia likes this idea for several reasons. First, it keeps more of the wealth from the nuclear trade in Australia. Second, it reduces proliferation risk by keeping nuclear materials in Australia and instead sells counterparties higher-value products such as electricity.

But the main reason DESERTEC-Australia likes the idea is that building 10,000-20,000MW of nuclear power plants in an isolated area of the South Australian Outback (ie Woomera) would require building of large-scale power lines to deliver that low emission energy both to Australia's domestic electricity market (why not?) as well as to electricity trade partners overseas.

This fits perfectly with DESERTEC-Australia's ideal of Australia's Outback becoming the powerhouse of the nation. With nuclear, solar, geothermal, natural gas and wind all being generated through a nationwide electricity and natural gas network with a nexus at Olympic Dam or Moomba, Australia ends up with a highly-flexible electricity and energy infrastructure. It would also lay the groundwork for huge, valued-added, premium-priced, low-emission electricity exports to Asia over High-Voltage Direct Current power lines.

You can read more about DESERTEC-Australia's ideas in "2050: Australia-Clean Energy Superpower," in which nuclear power is mentioned briefly in "Nuclear Power," which in turn, draws heavily from ASFEE's idea of "Put the Nukes at Roxby."

Once you digest these ideas, you'll see how they add up to a kind of 'grand unified solution' to a pile of issues/ problems simultaneously.

Should you like to find out more, you can reach me at the email address below.

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