How can Australia help prevent nuclear proliferation?

By BRIAN MARTIN

Some proponents of the mining and export of Australian uranium profess to be against breeder reactors; they argue that by withholding uranium, Australia would help "force" some countries with nuclear power (for example, France and the US) to move more quickly to breeder reactors, which do not require nearly as much uranium.

This is a real possibility. However, the past history of nuclear power suggests that exporting uranium in the long term would provide an even greater support for breeder advocates.

Too small

Ever since the idea of "peaceful" nuclear power has been considered, scientists and planners realised that nuclear power would only be viable if the breeder could become commercially competitive.

The contribution to world energy demand by the burning of the lighter uranium isotope is just too small - a few per cent of what coal could supply - to be worth the massive research and development effort. By transforming the heavier uranium isotopes into plutonium, roughly 60 times as much energy can be obtained from uranium.

Yet in spite of decades of intense research and development work, and a massive investment of research dollars - currently ranging from 10 to 100 times the amount devoted to solar technology, for example - breeder reactors are not yet proven sources of energy, whereas solar technology, at least on a small scale, is quite feasible as a new energy source.

The only thing that will keep breeder technology alive is further massive inputs to breeder research and development.

And the most likely way that this will occur is through maintenance and expansion of the breeder-reactor program for which only the massive capital inputs into this program can further

broaden studies be justified or indeed maintained with expanding use of personnel and resources.

So the proponents of the "export uranium-to-stop the breeder" argument may actually be encouraging the very development they claim to oppose.

Breach one must come to grips with the momentum built up in any institution - in this case nuclear technology, which often defies those who plan or hope to "turn off" a program when it has served its purpose.

Too late

This phenomenon can be seen in many areas, from transportation to military preparedness to medicine. Those who argue that uranium exports are justified as an interim measure to solar technology, overlook or undermine the institutional momentum of the nuclear establishment.

To stop such a pressure group in 30 years' time, action is needed now; in 30 years' time it will be too late.

Two further (rather extreme) arguments are sometimes advanced to support uranium mining. One is that Australia's stance on mining will not make any difference because plenty of uranium can be obtained from low-grade ore or sea water (presently at a considerably higher price, but not so high as to significantly increase the price of nuclear electricity).

The conclusion implicitly drawn by proponents of mining, presumably, is that Australia should make money from its uranium while it can.

Such a stance completely denies the possibility of moral persuasion. It seems likely that a decision not to mine uranium, accompanied by positive statements and actions in favour of energy alternatives, would encourage growth.

So let us re-examine the nuclear debate.

Abdication

A stance based on this argument alone also represents an abdication of moral responsibility. The argument is directly analogous to an argument to export opium or slaves because not exporting them would not make any difference.

A second argument sometimes presented in support of uranium is that if "we" don't export Australian uranium, then "they" (meaning the Japanese) will come and take it.

This argument of course is based on an optimistic assumption: the previous one: if Japan wants uranium so desperately then it would be quicker and cheaper to extract it from sea water.

A strong objection to this argument is that in the present political and economic circumstances there is no likelihood of an attack. Even assuming that an attack were remotely likely, the natural response by any group of people believed in its position would be to defend themselves (and to obtain international support for this stance).

Viable

Proponents of the "export - so they won't - come and take it" argument should also be in favour of giving Australian land (coding its territory) to the breeding millions from the north who will otherwise come and occupy it.

More seriously, the export of coal to meet truly urgent energy needs is a viable (and possibly economic) policy alternative, quite compatible with a moral opposition to the export of uranium.

I have already made some arguments about how Australia might help poor peoples or pacify nuclear proliferation. Here is another possibility.

Australia could state that it would allow export of its uranium once it had been convinced that (1) Importing countries had implemented adequate energy conservation measures.

(2) Importing countries had devised a large proportion of their research and development funds, for a number of years, to alternative energy sources.

(3) Importing countries had committed themselves to sharing a viable fraction of the expertise and/or GNP with some countries.

(4) An extensive public debate had been carried out on the desirability of nuclear power versus alternative energy sources and strategies.

(5) The importing country, after all the above, still found a definite need for the uranium.