

AUSTRALIAN NUCLEAR TECHNOLOGY FORUM

1/9/00

The Manager
Greenhouse Gas Abatement Program
GPO Box 621
Canberra
ACT 2601

Dear Sir or Madam:

RE: GGAP Proposal

There are many alternatives for greenhouse gas abatement. Most of these unfortunately have developed a political dimension which tends to cloud the technical issues that must be considered. For instance, much has been written about "sustainable" and "green" electricity but it is not well known that all energy generating technologies produce some greenhouse gases during their lifetimes.

Under the groundrules for GGAP proposals up to \$400m can be spent. With this limitation we propose (gratis) that the government should subsidise partially or totally the installation of domestic solar hot water heaters. The table below shows the relative merits of several options. Further, the table shows that only solar hot water and wind power would reach or exceed the target of at least 250,000 T (i.e. tonnes) CO2 saved per year.

ANNUAL CO2 ABATEMENT FOR \$400M INVESTMENT

Method	Total MWe (units)	MWhe/y	CO2 Deficit T/MWhe/y	Net CO2 saved T/y	Comments
Solar hot water	NA(133300)	443,000 (heat used)	-0.1	398,700	proven/variable
Photo-Voltaic	46(13330)	44,300	0.08	40,750	proven/variable
Wind	130(130)	284,700	0.04	273,000	proven/variable
Tidal	50(1)	96,360	0.13	83,800	unproven/variable/negative coastal impact
Nuclear	200(0.2)*	1,401,600	0.02	1,373,000	proven/not gov't policy

Assumes 1 tonne of CO2 saved per MWhe not generated from black coal

* nuclear units are suitable for central power stations only

It should be noted from the table that the greatest level of CO2 abatement per dollar spent is that from nuclear power. Nuclear power is shunned by all major political parties in this country, but we believe undeservedly so. Safety is not really an issue as indicated by the 1991 Conference of World Energy Experts which met in Helsinki and concluded that nuclear was the safest form of generation. Further, it is a mature technology having commenced in 1956 that now produces more than 1/6 of the world's electricity. Historically generating costs relative to coal have slightly favoured the latter in Australia, but with global warming becoming a real problem - nuclear is the only realistic solution for large-scale electricity generation.

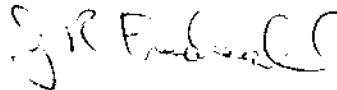
We believe that too many environmentalists fiddle with alternative technologies while the earth burns. If we fail to consider the nuclear option we will be viewed as grossly negligent by future generations when "greenhouse" starts to bite and the low-lying islands start to submerge by the rising oceans.

We also urge you to consider the facts presented in a paper by two of the undersigned. While there is a contribution to be made by the so-called green technologies, it will be minor, too little and too late. For example, wind energy in the USA contributes 0.1% of the electricity supply and they hope to increase it to only 5% by 2020 whereas nuclear currently supplies 19% and could be much more if political constraints were removed.

Yours truly,



J. Brough
ANTF Convenor



J.R. Fredsall
Member



N.A. Parsons
Member