The Australian manufacturing industry Submission 7

Wind and solar is and always will be expensive due to its intermittent nature. Backup power must always be available.

Perhaps it is time for some rethinking to solve Australia's long term energy needs.

Current Nuclear power stations are too large and too expensive for the Australian electrical system. The nuclear engineering world is concentrating on modular units in an effort to reduce costs but none are ready yet. Looking at what is in development it is easy to see that the builders of Pressurised water reactors are developing smaller versions but still requiring high pressures and heavy steel vessels. Having invested in large, steel forging plants. Why would'nt they. As we know there are risks with water under extremely high pressure and temperature. Past failures have all been pressure related Three Mile Island, Chernobel and Fukashima.

There is however a proposal under consideration in the UK for a development called the Molten Salt Reactor designed by the company MOLTEX ENERGY, ranging in output from 150Mw to 1500Mw.

Two reactors are under development, one of which is capable of using waste from other reactors.

They operate at atmospheric pressure so there is no need for expensive pressure vessels and all of their associated risks .

Similar efforts are being undertaken by the Chinese who are reported to be about to test their first molten salt prototype.

A further guide to this development is the activity of Moltex in Canada who are well advanced with molten salt reactors for New Brunswick where they have proposed a molten salt reactor which will use spent fuel from the Canadian CANDU reactors, thereby eliminating much of their waste already accumulated.

It will take a number of years for us to develop and implement the necessary expertise and engineering infrastructure to control nuclear a program based on what we already have at Lucas Heights.

By the time we have developed the regulatory infrastructure and trained our engineers, we could be building a replica Moltex power station using local steel and concrete materials, needing only to purchase the associated turbo generators overseas.

To avoid further dependency on overseas organisations we need to start now.

Yours Sincerely

