

Further to my submission No 33 I wish to make the following supporting Observations / additions:

1. Jorg Imberger from the University of Western Australia's Centre for Water Research and WA's Science of the Year believes the start-up costs of a nuclear reactor would be 20 %more expensive than a new coal- fired station that produces more than 1000 megawatts of power. As reported in The Weekend Australian 25 /26 July 2009. "He believes the next generation of power plants are producing less waste and risk. And he says that by 2030, fusion, the same process as the sun's heat and which creates no waste - will be used in the generation of energy".

The use of the new quantum computer technology, with their sophisticated problem processing ability, may provide the key to identifying the long awaited fusion energy breakthrough.

2. Belinda Robinson Chief Executive, Australian Production and Petroleum Canberra said. "Natural Gas is dismissed on the false premise that gas prices fluctuate with oil prices leading to volatility which would reduce the nation's industrial competitiveness and put jobs at risk. She said. "This is not the case: Over the past decade, domestic natural gas prices have been extremely stable and one of the lowest in the OECD". Full text may be found Opinion 13 the Australian 23 July 2009.

New discoveries, such as the 7 trillion cubic feet Poseidon field, and Conoco Phillips 3.5 trillion cubic feet discovery, underpin the already strong industry.

The conclusion: Natural Gas is an available energy source that can produce base power as conveniently as coal but with reduced greenhouse gas emissions.

3. For Australian rural industry: The availability and cost of fertiliser is linked closely to the cost effective production of many crops. In a world currently facing major food security issues such matters are of critical importance. As well a reducing the use of oil, the 3.5 bn urea project at Collie south of Perth offers a key to solving the Australian fertiliser cost and availability problems. The plant will transform sub - bituminous coal into urea, a form of fertiliser using emissions coal gasification technology: The benefits of using urea as a fertiliser are well documented.

4. Algae in thought to be a more efficient source of fuel than conventional biofuels- such as ethanol made from corn or sugar cane and biodiesel made from wheat , soy bean or palm oil. According to Exxon the yield of biofuel from algae is 2000 gallons an acre, more than three times that of biodiesel from palm oil, and eight times the ethanol yield from corn. It is suitable for use as a jet fuel.

ExxonMobil spokesman Emil Jacobs said. "Photosynthetic algae -based fuels could help meet the world's growing demand for transportation fuel while reducing greenhouse gas emissions".

5. It is widely acknowledged that the widespread use of solar wind and wave energy sources is constrained due to the lack of efficient low cost energy storage systems.

A opportunity exists for owners of electric powered vehicles to, when they are not in use [on charge], to feed power back into the grid to help meet consumer needs when base load power sources are stretched. As the number of electric powered vehicles increases this ability may well become significant.

6. For coal fired power stations recent research undertaken by Sydney University staff has indicated that, due to the increased energy usage necessary to compress the greenhouse gasses, plus possible leakage problems, underground storages may not be an effective solution.

Improving the energy efficiency of the older generators may offer greater gains.