Alternative Energies – the next bubble?

I recently attended a seminar on the alternative energy market. Alternative energy refers to the generation and use of energy sources other than traditional coal and oil, which as we all know produce vast amounts of Green House Gas (GHG) emissions. Interestingly enough, Natural Gas and Nuclear energy are classified as alternative energies. This is because of the claim that they produce less GHG emissions compared to oil and coal. So it would be a mistake to think of all Alternative Energies as Sustainable or Renewable energies because some are not.

The topics and issues raised during the seminar left me and many of the other people in attendance in amazement. Some of the numbers and statistics banded around make the mind boggle. For example, China is urbanising its population at a rate of 12 million people per year. Thatôs equivalent to building a city the size of Brisbane every 2 months ï and we think Queenslandôs growth is impressive!

I recall watching a documentary on the ABC a little while ago and an expert on Nuclear energy was being interviewed. He stated that every country that has nuclear power, has also considered or planned a nuclear weapons program. This is backed by Frances Howe from Corporate Watch Australia confirming that, ñOf the 10 nations to have produced nuclear weapons, five did so under cover of an ostensibly peaceful nuclear program - India, Pakistan, Israel, South Africa and North Korea. Over 20 countries have used their ñpeacefulò nuclear facilities for nuclear weapons researchò. While many energy experts claim that nuclear power results in lower GHG emissions, they are only stating part of the story. Howe states some counter-arguments to nuclear energy:

- a global doubling of nuclear power at the expense of coal would reduce greenhouse emissions by less than 5 per cent with significant risks. For example the reactors would produce enough plutonium to build over one million nuclear weapons; and
- a significant and growing body of scientific literature and experience demonstrates how the use of renewable energy sources and energy efficiency policies and technologies can generate major reductions in greenhouse emissions - without recourse to nuclear power.
- Not a single repository exists in the world for the disposal of high-level nuclear waste, and few countries have identified potential sites for such a repository.

The Energy Gap

While at university in the 1980ôs, I recall one of my lecturers, Dr Kalam, discussing the growing energy gap building up around the world. He said something along the lines of ñé weôll need to build 1 nuclear power plant per month into the future just to stop the energy gap from growingò. Thatôs around 12 per year.

So how are we faring today as we round off the first decade of the 21st century and whatôs the status with nuclear power globally? There 441 plants are operational around the world, while 27 are under construction and a further 80 are planned. Iôd say that Dr Kalam was very close.

I spoke to one of the presenters from Bakerôs Group (an alternative energy fund manager) at the seminar he stated that if the world continued to use nuclear power at the rate we are and planning to do, weôd probably run out of Uranium in about 20 years time. Funny about that, another natural resource that isnôt infinite!

What about oil? Bakerôs Group showed that world oil production is expected to ópeakô between 2012 and 2015 at around 30 billion barrels per year. After the ópeak is reached, the production of oil will steadily decline down to less that 15 billion barrels per year in 2050. Around this time however, the world demand for oil will continue to grow from 30 billion barrels per year in 2015 to around 50 billion barrels per year in 2050 based on current growth and consumption. And we thought that $1.70 for petrol was expensive when it peaked in the middle of 2008. According to these figures, that leaves us with a severe shortage of oil in less than 6 years. Sell the car.

The Good News

I believe that we are entering an important point in human history. The signs around us are clear from the problems the world is facing with slowing economies, credit problems and strong population growth. We are getting hungrier not only for food but also for energy. We will need to work on building renewable and sustainable energy resources.

The good news is that there are lots of renewable energies available and they are not only proven but many of them have been around for decades or longer. The list is long when you compare it to non-renewable energies such as coal, gas, oil and nuclear. Examples include Geothermal, Wind, Solar, Hydro, Tidal, Bio-mass, Bio-Fuel and Fuel Cells. Who knows what else in on the drawing board.

From an investment perspective, Bakerôs Group showed that the Alternative Energy sector has experienced faster growth than oil and coal. Remember that the definition of Alternative Energies included natural gas, nuclear and renewable energies.

Some experts argue that alternative energies are expensive compared to fossil fuels and nuclear energy. That may have been the case in the past but as our natural, non-renewable resources dwindle, and we all know they will, renewable energy will not only be cheaper, they will provide our energy needs in the future. Bakerôs Group estimate that energy costs (gas and electricity) are expected to double in Australia over the next 8 years before taking into consideration the cost of the Rudd Governments Emissions Trading Scheme (ETS). By introducing a 20% reduction in emissions, the costs of energy in Australia will rise by over 300%. Sell the Plasma TV and air conditioners. Better still, place your order for Solar Panels.

Sam Pitruzzello, December 2008

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