

The Madness of King Rudd

In 1994 they made a movie called 'The Madness of King George. 'A true story about the eccentric and erratic behaviour of King George the 3 of England, who exhibited increasing strange and eccentric behaviour, ignoring all logic and common sense to do as he wished.

In the near future they will no doubt be making another one based on the same behaviour of Kevin Rudd, called 'The Madness of King Rudd.'

In spite of all the screaming facts from all corners of the globe that now has become apparent about renewable energy and global warming Kevin Rudd still refuses to listen or look at the truth and still declares that 20% of our power generation will be renewable energy.

IT IS PHYSICALLY IMPOSSIBLE TO DO THAT.

And if it was possible (and I repeat it is not) the influence from the unreliable wind or solar generators would cause instability in the power grid system as they continually change without any warning.

Also there would have to be a spinning reserve in the grid system in excess of 20% plus normal spinning reserve to cover the largest unit (in N.S.W. 660MWs) plus spare.

That reserve would be covered by thermal power station units backed off sufficiently in load to immediately pick up if required. This affects their generation efficiency as they are at maximum efficiency at full load. Thus increasing generation cost.

And no you cannot just 'turn them on and off like light switches. To bring a coal fired thermal unit to at least mid load or better operating level can take up to twelve hours or more from a cold start.

Hot starts are quicker but are not good for the unit on a continuous basis. Generators are designed to stay on line and operating continuously and they normally do that for months on end. Usually more than a year requiring only normal service shutdowns.

The power grid system in any country is a very closely controlled, finely tuned and highly sensitive network that must maintain the system voltage and frequency within very fine limits.

To subject it to major (i.e.20%) unregulated continual variations in power input can create control problems and instability.

More gas turbine are being installed but these only have a relatively small output and are used for peak loads, not load control.

I read an article recently by a Melbourne university lecturer where he stated that coal fired thermal power generation units were slow and could not respond to load changes.

It is this type of erroneous completely wrong statements from someone who should know better, that deliberately mislead the community.

Coal fired thermal power generators can respond rapidly to system load changes and can cover the instant loss of the largest unit (660 megawatts) without instability being created in the system. It is this type of response that is required to compensate for the erratic output from wind and solar generators if they were to have a 20% input to the grid.

One wonders if Kevin Rudd has an ulterior motive for doing his best to destroy the power industry. Surely no one can be that blind and stupid to not see the glaring truth about the so called renewable energy farce.

It is not about what political persuasion or beliefs you have. It is about facts and the truth. Certainly anything cleaner or cheaper is welcomed but only IF it IS cheaper, NOT because the greenies or wind generator and solar array manufacturers say so.

The cost to install, operate and maintain them is very high. Wind generators have killed hundreds of thousands of birds with bird strikes throughout the world.

Here are some of those "screaming facts.'

In the early 1980s California was seduced by renewable energy and proceeded to offer subsidies to anyone wanting to erect a wind generator. This subsidy ceased in the late 1990s as they ran out of money due to bankruptcy.

By 2008 they had over 18000 wind generators scattered across California-----
---14000 of them no longer operate, some were cannibalised to keep the other running.

California power cost has now doubled. Their thermal power generation has increased continually to compensated for this disaster and the input from the wind generators, after 30 years of development, produces only 2.3% of California's electricity. An extremely small percentage and erratic output.

There is also over 15000 birds killed per year by bird strikes from wind generators.

Spain also embraced renewable energy with wind generators and solar array farms. A recent detailed analysis found that for every job created by state-funded support of renewables, particularly wind energy, 2.2 jobs were lost. Each wind industry job created cost almost \$2-million in subsidies.

They now have an unemployment rate of 19%. The cost of power has gone up 100% and they are forced to import power from other countries.

Germany has over 7000 wind generators with over 2500 wind generator failures last year alone. The German experience is no different. Der Spiegel reports that "Germany's CO₂ emissions haven't been reduced by even a single gram," and additional coal- and gas-fired plants have been constructed to ensure reliable supply.

Sweden has 5000 wind generators and 2000 wind generator failures.

During the cold weather in Europe last December a large number of wind generators froze up and did not work at all. When they finally did they only generated 4% of their capacity.

Denmark, the world's most wind-intensive nation, with more than 6,000 turbines generating 19% of its electricity, has yet to close a single fossil-fuel plant. It requires 50% more coal-generated electricity to cover wind power's unpredictability, and pollution and carbon dioxide emissions have risen by 36% in 2006 alone and continues to rise.. Its electricity generation costs are the highest in Europe.

Niels Gram of the Danish Federation of Industries says, "Windmills are a mistake and economically make no sense."

Aase Madsen ,the Chair of Energy Policy in the Danish Parliament, calls it "a terribly expensive disaster."

Wind generators only generate an average of 30% of their capacity averaged over a month and are completely inconsistent, varying in output between zero and 70% and rarely reaching their maximum capacity.

For wind generators to provide 20% renewable energy in Australia there would have to be over 7000 of them assuming they were 5MW units with the usual generation capability of 30%.

Every Megawatt they generate would have to be backed up by a spinning reserve in the power grid system ready to compensate for their inconsistency. Which neutralises any advantage they may offer.

Wind generators are ideal for boats or isolated areas where they can charge a

bank of wet cell batteries providing a continuous power supply. But are of great expense and are of no advantage to the power grid system.

Solar power Generation is in two forms.

Solar thermal generation is where the reflectors are concentrated on a central receiver which then heats a liquid such as sodium, which in turn heats the water to generate steam that drives a turbine coupled to a generator.

The problem is the heat is only available in strong sunlight and increases throughout the day and then falls off to nothing in the evening when there is insufficient sunlight to heat and drive the turbine. It then stops generating. This inactivity occurs for 14hrs of the day and the continual heating and cooling is not good for steam turbine operation.

These units, even though they cover a large area, only generate small amounts of power and add little to power demands.

Solar Electric Generation through solar array farms is more common where the panels generate power from sunlight stimulation. They are very expensive per kilowatt generated to install and require high maintenance to keep them clean and are susceptible to damage from storms and falling objects.

The total peak power generated in Australia is approximately 50,000MWs.

The World's largest (currently) operating solar power generation plant is the Olmedilla Photovoltaic Park in Spain, and this needs an area of 250 hectares to generate 60MWs in bright sunlight. So let's put this into perspective.

There are 100 hectares to the square kilometer, and using Olmedilla as a guide, one square kilometer will generate 24MWs.

Theoretically therefore, at maximum generation on a bright sunny day the generation of 10,000MWs to power 20% of Australia's needs would require a solar array covering an area of 420 square kilometers - a massive area.

However because such a plant would only generate at approximately 20%-30% of its capacity measured over a year, the full size area needed would have to be five times larger, i.e. 2100 square kilometers.

Then there is a minor (?) problem: these plants do not generate at night!!

So, here are some hard facts about solar generation:

1. Supply is more consistent in continually sunny areas e.g. Saudi Arabia, Queensland, Africa, etc., therefore solar generation would not be very effective in areas such as U.K., Europe, Russia, etc. where it is far more

- overcast. Solar power requires bright sunlight for maximum performance. The output can vary dependent on how overcast it is.
2. Solar generation is only possible during daylight hours where there is sufficient sunlight, approximately eight to ten hours per day; therefore it does not generate anything for between 14 and 16 hours per day.
 3. Output cannot be controlled except for changing angles of those arrays fitted with moving solar panels.
 4. The supply is unreliable, although more consistent than wind generation which is notoriously unreliable and thermal, nuclear, or hydro power (if available) is required to carry sufficient reserve in the grid system to compensate for any changes in solar plant output due to any changes in sunlight during the day.
 5. It is very expensive per kilowatt to install, and expensive per kilowatt to operate and maintain. The solar panel receivers have to be continuously kept clean of bird droppings, dust, and rubbish; and they can be damaged in severe weather (for example in the recent severe hailstorm in Melbourne).

As a power 'add on', solar 'farms' are useful but could never play anything more than a small part of the grid system because of their inflexible and unreliable nature. The same applies even more so to wind generators.

A note about solar power generation for your home:

The solar program subsidised by the federal government has an output of 1 to 1.5 kilowatts per hour. Provided the sun shines brightly and there is no cloud cover. The power usage of the average Australian family (i.e. 2 adults + 2 children) is approximately 3 to 4 kilowatts per hour during the day and the additional power required would be drawn from the grid system

Even at night while you are asleep some 0.8 to 1.5 kilowatts per hour is still required to keep things going, such as a refrigerator. If you start to run things such as air-conditioning then inevitably your power demand must increase and all power is drawn from the power grid.

The cost of a 1.7kW system is somewhere between \$7,000 & \$8,000 after allowing for the present Australian Government subsidy. The cost before the subsidy is somewhere between \$13,000 & \$14,000.

The good news is that a far more efficient solar photovoltaic panel has been invented in Israel, and this is reported to be 400% more efficient than present panels. However these are still being tested and developed and not yet ready for general use.

Hydro Electric is the perfect Power Generation but we are using all available water resources and there is no more available to increase its capacity.

Hydro generation is 4.6% of total generation and can only run when there is sufficient water from spring snow melt and rain water.

Geothermal is good if you are in New Zealand but there is none in Australia except for the 'Hot Rocks' experiments which so far has only met with failure. Tidal and wave Generation is being developed but would only have a very minor possible power generation capability for the foreseeable future. In the distant future (50 years) I believe we may develop it substantially.

Nuclear Power generation is proving throughout the world to be the ideal power generation system. Especially with the new revolutionary 4th generation Liquid fluoride Thorium Reactor systems that solves all the problems associated with nuclear power. LFTRs consume 100% of the thorium fed to them and can be started with spent fuel rods or old nuclear warheads.

LFTRs will inevitably be used as janitors cleaning up old nuclear waste. A very exciting new concept for power generation.

In the past three years the Rudd government has squandered billions of dollars on;

- Clean coal technology. A complete failure.
- Hot rocks programmes, Still struggling to get any form of result.
- Power stations with CO2 deep storage. Massive cost for a teaspoon of power.
- Renewable energy projects. Could never achieve a viable usage or cost.
- Home Insulation programmes. A total waste of money and a disaster.
- Solar Power on homes. Will have negligible effect on power generation.

All have been either a failure or worse a disaster as in the insulation program.

AND FOR WHY?

Oh yes that's right !! To reduce our carbon footprint'. What a ridiculous name. One imagines a big black boot covered in graphite leaving a mess on the carpet. When they actually mean carbon dioxide emissions.

Carbon Dioxide the gas essential to all life and they call it a pollutant.

SO HOW DOES ALL THE ABOVE REDUCE CARBON DIOXIDE EMISSIONS?

Ah yes! By reducing the amount of electrical power from the thermal power stations that generate over 94% of our energy. Therefore reducing the CO₂ coming out of the stacks.

Except for one minor point!!!!!!

In 2008-2009 Australia's power stations produced approximately 276 billion kilowatt hours (TWh) of electricity*, 71.5% more than the 1990 level and continue to grow at 4% pa.

This growth in production is normal and has not even dropped in the slightest due to the above programmes.

In other words all the money spent by the federal and state governments is a TOTAL squandering of our money for ZERO reduction in CO2 emissions.

The power returned to the grid system from domestic solar panels would be an irritating and a very expensive teaspoon full in a 200 litre drum.

The federal and state governments have spent many billions of dollars of ours and our children's economic future chasing butterflies.

One final point; NOT ONE of the doomsday predictions from as far back as 1979 has eventuated or proven to be true.

Global warming will be forever in our history as the biggest scam EVER perpetrated on mankind putting billions of dollars in the pockets of those that have promoted the scam and those 'scientists' that have been highly paid to come up with 'positive' results.

(Remember the computer 2000 millennium bug.)

The eruption of the volcano in Iceland that is emitting millions of tons of sulphur dioxide, ash and carbon dioxide daily make man's efforts extremely puny and ridiculous.

The madness of the federal and state governments in this horrific waste of money must be stopped before they bankrupt the country.

Terence Cardwell