

Senate Enquiry into Renewable Energy.

It is a known fact in the oil Industry, that all the large major Oil and Gas fields have been found and exploited. Depending on who you consult, about production levels, the majority of consensus is that these oil field reached their peak production figures in 2004, and that the production figure would cause a real decline in oil available (costing more to produce)

The worlds demand from 2004 has been climbing by an average of 3% to 5%, and future projection on a world basis indicates this rise will continue in the foreseeable future(depending on who you get the energy) figures from, this means that the gap between production and availability of energy and production is widening, at such a rate that current alternative renewable energy will not be able to bridge this gap.

To substitute coal into a fuel substitute as Sasolberg is doing for the last 60 years, will just accelerate Green House Gas beyond the level where the planet earth will not be able to support any life form on this planet. Current scientific figures show that planet earth is firmly on this pathway of self destruction. The time is now close to the fact that for self preservation all fossil fuel will have to be banned.

This brings us to the point, which is a fact, non of the renewable energies can bridge the current energy gap today, at best these alternate energy sources (solar, wind, tidal, hydro, biomass and hot springs) only could supply 20% of the total energy requirements that this new modern world requires.

The only technology in the world that can bridge and even replace fossil energy, and allow for increased energy demand as the world population grows , is from **d'Oliveira Natural Gas Refinery (dNGR)**, website > <http://www.users.bigpond.net.au/dngr> <

The **dNGR operates off prepared biomass**. This is harvested from sewerage waste water, or from animal manure, or agricultural waste. The beauty of this system is the more population increase in humans, and animals so the biomass increases, the supply is infinite.

The **dNGR** is still in its infant stage of development (a good comparison would be the dNGR is the Kitty Hawk plane, compared to the recent airbus aircraft. The current performance is quite outstanding compared to any other system world wide that uses any form of biomass either anaerobic or aerobic. most efficient system can only produce from 1Kg of bio -mass 132 Litres of energy = 4986 Kj or 1.39 Kwh .

The dNGR will produce from the same 1Kg biomass = 449.5 Litres of energy = 17,000Kj = 4.72 Kwh, and has the potential to increase that factor by 10 through practical experience on an operating dNGR.

This means that the dNGR can produce 1 Litre of energy at 0.001 cent , that is cheaper than current and past fossil crude oil production figures.

The dNGR when using Hydrogen which comes from mol of biomass = 5 litres of gas at 39.6 Kj per litre = 198Kj per 1 mol.

At present the dNGR allows 224 litres Hydrogen (8,870Kj) to be produced= 2.46Kwh Plus 224 Litres of methane (8,462 Kj = 2.3Kwh) giving a total energy production from 1 Kg biomass of 4.81 Kwh a very high energy recovery, with a potential to increase this figure tenfold.

No other energy source except nuclear energy can produce such a large extraction of energy value from 1Kg of fuel source matter

It will be noted on my website letters of validation from both CSIRO dated 1993 and Griffith University 1996, draughted before the terms GHG, Climate change where even commonly know. It should be noted that both reports at the bottom of letter states that no funds where received, thus indicating a true opinion expressed without outside pressures.

I would recommend to the Senate , that they find in favour in financing a pilot plant with funds to build train staff to operate the dNGR.

1. I have 106 page information manual
2. 70 page Commissioning manual
3. 41 page IP journal,
4. 40 flow technical flow sheets of dNGR

This technology can be started today if the funding was available, it would take approx two years to build and six months to train staff to operate the dNGR. It would also require my input during construction, commissioning, and plant operation for at for the first year, and then as an advisor from then on.

The dNGR value nationally is as follows;

- Will create new permanent , job in greater numbers than will be lost.
- Will provide a new energy source on a National basis.
- Will reduce GHG, and slow down Climate change.
- Will provide a new source of potable water
- Will drought proof all cities and large towns in Australia
- Will make Australia an international leader in combating GHG.
- The dNGR technology will bring in Billion of dollars per year from export earning.
- Will help to put back into rivers (improve flow rates) and lakes clean potable water, and help to solve the pollution of them from both sewerage and agricultural run off.
- The dNGR plants run at a very high profit rate, which will encourage to build and own such plants (safe deposit for pension funds).
- The future of Australia cannot afford not to take this technology on board, from an environmentally point for future Australians to inherit

I will be available to answer question on this matter before the enquiry.

Best wish's

Cy d'Oliveira