Senate Inquiry into Australia's future oil supply and alternative transport fuels Submission

According to independent oil industry analysts, global peak oil production is imminent. The Association for the Study of Peak Oil predicts that peak oil will occur in 2010 (1). Australian domestic oil production began its decline in 2000, with our oil self sufficiency predicted to fall to 20% by 2020 (2). With world oil demand continuing to rise against impending global production decline, the day is foreseeable when we will no longer be able to access imported oil at a price we can afford, indeed perhaps not at any price.

There is no scalable replacement available for crude oil, a uniquely dense and portable source of energy. Australia has significant reserves of shale oil, but even if its low net energy yield and detrimental effects on human health and the environment are disregarded, production is unlikely to be scaled up to a significant level in the near future. (CEO of Shell, the worlds most significant investor in shale oil production, has stated "the overall plan for oil sands is to make just 5 million barrels a day by 2030"(3): 26 more years to reach 6.6% of 2004 world oil usage.) Australia also has significant natural gas reserves, but much of our reserves are offshore and will be expensive to develop and transport, with 75% classified as not profitable to produce.(4) This could change with higher gas prices, but the resource is hardly infinite: our present production level is the equivalent in energy of our petrol and diesel consumption, with "visions for natural gas development currently making little provision for a transport role."(5)

Biofuels derived from annual crops also cannot be scaled up sufficiently due to lack of available land area. Biofuels derived from wood may be more promising, although not a panacea. Since this seems to be little discussed compared to other biofuels, I have attached a document by the CSIRO, "Developing A Biofuel Economy In Australia By 2025", looking at methanol as a part of various combined strategies. Woodgas, also little mentioned, was relied on to run over a million of vehicles in Europe during World War II (6) and can be used to power existing vehicles by retrofitting with a gasifier. Since no one energy source is capable of taking the place of oil and different solutions may be appropriate in different regions or localities.

With no ready solution to the looming energy crisis, in the coming decades, permanently high energy and transport prices could see a permanent economic contraction and societal restructuring. Freight and personal transport requirements as we know them today will no longer be supportable; food and other essential production will become highly localised. Globalisation, economic growth, car dependence and rampant consumerism will no longer be possible: people will need to turn to a locally-based, resource-conserving way of life.

The very least the Federal Government could do at this juncture is to pursue "no regrets" outcomes which will have economic, health and CO2 emissions benefits regardless of how or when the above scenario unfolds. \$9 billion is spent annually in this country on public subsidies for fossil fuel production and consumption, with about 58% of these being perverse subsidies, which both increase greenhouse gas emissions and reduce economic efficiency.(7) These subsidies must be shifted immediately to efficient, sustainable, renewable energy and transport fuel systems: they may seem marginal now but in future they may well be all the energy we have. Transport projects such as the \$500 million Kuranda Range Road upgrade should be abandoned and funding transferred to efficient modes of transport such as bicycles and rail.

Urban planning needs to assume a much higher priority and undergo a complete redesign in the light of a post oil future: people must have their daily needs within walking distance or a short ride on public transport, and suburbs that do not currently offer this will need to be restructured to integrate localised business centres and access to public transport. There needs to be a complete cessation of poorly serviced, car dependent suburban development. Residents of outlying suburban areas have been identified as most exposed to socio-economic impacts from rising fuel prices.(8)

Presumably none of this will be popular or easy but it is essential to face up to the facts of oil depletion and begin to take action. The longer we wait, the more difficult and dangerous the transition.

Best regards,

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Attachment:

biofueleconomy-01-10.pdf "Developing A Biofuel Economy In Australia By 2025" CSIRO National Futures Group Working Document 01-10, Barney Foran 2001

References:

- 1. www.aspo.org
- 2. APPEA (2004) quoted by apso-australia.org
- 3. Quoted by http://www.crudeawakening.org/AboutPeakOil.htm
- 4. Fleay, B. J., Natural Gas: "Magic Pudding "or depleting resource (2002)
- 5. Fleay (2002)
- 6. www.woodgas.com
- 7. Riedy, C., University of Technology Sydney, Institute for Sustainable Futures, working paper CR2003/01 Subsidies that Encourage Fossil Fuel Use in Australia (2003)
- 8. Dodson, J. & Sipe, N., Griffith University, Urban Research Paper 6 Oil Vulnerability in the Australian City (2005)