

Re: Sustainability Charter

Dear Madam, Sir

The definition of sustainability should be:

A sustainable system is run on genuinely renewable fuels and/or energies without disturbing nature's equilibrium

The usual definition containing the phrase "leaving a liveable world for the next generation" is not strict enough and ignores that global warming is a problem already now.

The world is facing 2 immediate resource depletion problems: the global peaking of oil production and the limited CO2 absorption capacity of our atmosphere. The former happens at the source side, the latter at the sink side of the energy transformation process. A Sustainability Charter should therefore legally require for large Development Applications and/or Planning Instruments like a Metro Strategy:

(1) a fuel availability analysis (format attached, App. 29)

(2) a transition plan to renewable power (Energy equivalence principle in resource depletion, App. 20)

Out of the twin problems of peak oil and global warming the latter is more critical since it is irreversible. However, in the worst case scenario, peak oil may damage our economy to such an extent that necessary investments in renewable energies can no longer be done.

I refer to my submission #69 to the Senate Inquiry on oil supplies, entitled "Peak Oil Ante Portas, followed by Global Warming"

http://www.aph.gov.au/Senate/committee/rrat_ctte/oil_supply/submissions/sub69.pdf

which contains 16 specific recommendations some of which apply to the sustainability issue.

But the bottom line on sustainability is to stop global warming. It must be crystal clear to us that our current society and our current economy is built on the current climate (rainfall patterns, agricultural productivity, sea levels)

The best papers around on this subject come from James Hansen, director of the NASA Goddard Institute of Space Studies.

"Is there still time to avoid dangerous anthropogenic interference with global climate?"

http://www.columbia.edu/~jeh1/newschool_text_and_slides.pdf

He clearly states that 1 more degree warming will bring temperatures to levels observed in the last interglacial period when sea levels were 5-6 m higher than today. There were events like the meltwater pulse 1A when sea levels rose 1 m each 20 years. James also warns us that if we continue business as usual (build more fossil fuel dependent structures and facilities) for another 10 years that it will be impractical to move to an alternative path later on. A 2-3 degrees warming means a different planet Earth altogether.

Basically, we have to develop a new business model, a re-industrialisation of Australia based on renewable energies.

Some first steps in the transport world:

- (a) replace GHG emitting car traffic in urban areas by more efficient public transport (buses + light rail on all major roads, freeways and toll-ways)
- (b) reserve bio fuels for use in the agricultural sector
- (c) replace domestic flights up to 1,000 km by night trains
- (d) move long distance trucks onto rail (rolling highways)
- (e) promote coastal shipping

According to the above definition, nuclear power is not sustainable as it is neither CO₂ free nor independent of oil. We will see this very soon when oil production declines after peak oil, thereby reducing diesel supplies to the mining sector, including uranium mining.

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