

Submission to the Senate Enquiry into Australia's future oil supply

from: Harry A Lewis

This note addresses item 4 of the Enquiry's terms of reference ('Options for reducing Australia's transport fuel demands') with some consideration of item 3 ('Flow-on economic and social impacts in Australia from continuing rises in the price of transport fuel and potential reductions in oil supply').

The author writes as a private citizen, not as an accredited expert in any particular discipline relevant to the Enquiry's concerns.

The background is provided by these thoughts:

- There is a high probability that global Peak Oil will arrive within five years (from 2006)
- On the precautionary principle, it is prudent for us to prepare for that to happen
- Many of the possible adjustments (in the area of transport) that might mitigate the effects of continuing excess of demand over supply of oil, involve investments and activity with much longer lead-times than five years (e.g. any large-scale transfer of transport energy from oil to electricity, or the planning and building of new power stations – whatever view is taken about their environmental costs)
- It is therefore urgent to make such changes and adaptations as can be achieved well within a 5-year horizon, to prepare for global Peak Oil.

Here is one (transport-related) suggestion: act in all available ways to encourage and facilitate travel that is more (indeed much more) economical of oil-based energy than is car travel.

Clearly improvements in public transport, and sticks and carrots to move the volume of travel from private cars onto public transport, have a major role to play. But where new infrastructure is needed, the lead-times may already be too long to meet the requirements of travellers if Peak Oil arrives within five years.

Traffic management to favour buses over private cars can be introduced on a shorter timescale and (together with much-improved bus provision) should be pursued urgently.

In addition, there exist several technologies in a transport 'third way' (between conventional motor vehicles and walking) that allow random point-to-point journeys within cities, at much lower energy costs (especially oil fuel costs) than private cars. Pre-eminently the familiar bicycle, but also other forms of 'human-powered vehicle', including tricycles (whether upright or recumbent), scooters etc.; and low-powered motor/electrical transport including mini-scooters, and Segways. These other low-powered means of transport are far more energy-efficient than are private cars, but at present are banned from pavements and from roadways in Victoria (and I believe in at least some other states in Australia).

Modifications to road design, and associated traffic engineering, to permit and encourage increased bicycle (and other HPV) use on current motor roads (where provision is very patchy) and to permit and encourage use of low-powered personal transport (with enabling legislation as needed) can be achieved much more quickly and at lower energy and financial cost than would be required for completion of large projects such as installation of new suburban railway lines, or investment in new power generation (or power conversion) facilities.

Questions of speed and distance will need to be addressed. Given current (and rising) levels of congestion on roadways at commuting times, 'third way' forms of transport are almost certainly as time-efficient over short-to-medium length journeys as is the private car. However, in the short term a mixed strategy will no doubt be required, allowing for various 'park-and-ride' options – transfers between different transport modes on the same journey, where the private car is one of those modes.

What is envisaged is a significant shift in the 'centre of gravity' of travel in cities, away from the private car, towards both public transport and 'third-way' forms of travel. There will be many cases where the private car, or small commercial vehicle, cannot functionally be replaced, for some or all of a person's travel. That is consistent with a major displacement of the centre of gravity, which may be an absolute requirement if anything like our present way of life is to be preserved (and a major economic recession is to be avoided).

In conclusion: we seem to be faced (come Peak Oil) with three choices (or choices positioned somewhere in a triangle whose apexes are):

- maintain oil fuel consumption at present levels, and displace expenditure from other things to finance it [as will have to happen if demand for transport oil products proves totally inflexible]
- cut oil consumption, but retain present levels of energy consumption per kilometre travelled (so, cut travel distances) [as would happen if there were no change in the transport mix and energy-efficiency of vehicles, but non-oil expenditure were maintained]
- cut oil consumption, and reduce energy consumption per kilometre travelled (so, enable travel distances at something like current levels)

Of these three extremes, the first two are evidently recessionary, to the extent that oil prices rise: the first because non-travel expenditure would be cut, and so all the economic activity that it supports would shrink; the second because travel distances would be cut, and so all the economic activity that depends on present travel distances (e.g. to workplaces from outer suburbs) would diminish. Only the third offers a hope that anything close to the current levels of economic activity can be maintained as oil prices rise and rise.