



ASPO-Australia

Australian Association for the Study of Peak Oil & Gas

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Working group on Urban and Transport Planning

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General

1. The ASPO-Australia working group on Urban and Transport Planning welcomes the Senate initiative in holding an inquiry into Future Oil Supply.
2. However we note that Inquiry is under the auspices of the Rural and Regional Affairs and Transport Committee. Australian transport is heavily dependent on oil, and there are fewer opportunities to moderate the demand in rural and regional transport than there are in urban transport, although over 82% of all Australians will live in settlements of 25,000 or more by 2011, and almost 62% will live in the five mainland state capital cities [1, Table 3].
3. The Commonwealth position that urban transport is a state responsibility overlooks the national interest in moderating the total demand for oil for transport, since this demand is made up of urban and regional/rural components.
4. We take it that there is no need to convince the Committee of the need to moderate demand for oil. Globally there is a finite endowment of fossil fuels (gas as well as oil) and once this endowment is more than half gone (the Peak Oil phenomenon) it will be much more difficult and expensive to produce the remaining oil – and what happens after that? The world will not run out of oil in the foreseeable future, but it will no longer be so cheap. Much of AASPO's material [2], the invited keynote address that opened the 2005 Australasian Transport Research Forum [3] and many submissions to the Inquiry, including those published already on the Committee's web site [4], make this case. But of the four main approaches to reducing oil dependence (greater application of conventional planning measures, technological development, using fuel price as an economic lever, changing travel behaviour) only the second – technological development – appears to hold much hope for rural and regional transport. The others depend on an alternative being in place, which is much more likely to be the case in urban areas.
5. It is likely that government intervention will be needed if the supply of oil for transport cannot keep pace with the rising demand for it. All the indicators for aviation passengers and for road traffic (including road freight) [5] suggest that this demand will continue to rise for these modes – the most oil-dependent [1, Figure 4] – and hence that major technological improvements in engine efficiency will be needed just to cope with this rise in demand, if transport fuel supply does not increase.
6. Future conflicts will arise requiring decisions to be made on priorities for fuel use, when the supply of oil can no longer physically keep pace with rising demand. In these circumstances, demand must fall to match falling supply since supply cannot rise to match rising demand. Not only will it be necessary to prioritise between urban and regional/rural transport, but just as

significantly between passengers and freight, between imports and exports, between transport and other uses.

7. At present rural and regional freight is being encouraged to use diesel fuel. This is a short-sighted policy when future constraints can be expected on diesel supply, but when Australia has plentiful supplies of natural gas, which could also be used for the same purposes. However there is no national infrastructure for the distribution of natural gas. We believe that diesel-friendly subsidy policies require review.
8. A recent paper from Griffith University [6] examined, at a CD level (Collector District, as used by the Census) the extent and distribution of oil vulnerability in three major Australian cities – Sydney, Melbourne, Brisbane. This demonstrates conclusively that within these major urban areas, it is the outer metropolitan suburbs where the Vulnerability Index to Petrol Expense Rises (VIPER) is highest. The same methodology applied to other Australian cities or to regional areas would almost certainly demonstrate further what is intuitively obvious, ie the greater the provision of alternatives in and the higher the socio-economic status of an area, the less vulnerable to oil price rises its residents are.
9. The AASPO Working Group would like to see the provision of alternatives to cars in the most vulnerable areas given priority by State Governments. This would involve the provision of low-cost bus, bicycle and pedestrian facilities rather than mega-projects, which for public transport tend to require the sort of usage volumes only found in central urban areas to be worthwhile.
10. The Warren Centre at Sydney University carried out a three-year investigation of sustainable transport in sustainable cities [7] and concluded that greater regionalisation within the metropolitan area offered the best hope of sustainability. In its planning for metropolitan Sydney the NSW Government adopted the Warren Centre's slogan for this concept ("A City of Cities") but alas did not back this up with any sort of transport strategy.
11. A 2005 report to the US Department of Energy [8] showed how the effects of oil vulnerability would be reduced by anticipatory action, but this would require anticipation over one (or more) decades ahead of an issue which is now almost upon us.

Committee Terms of Reference

12. In the interests of brevity, we will now confine our comments to the Committee's Terms of Reference (reviewed below) and then offer 12 recommendations for the Commonwealth Government, which all fall under the fourth category below (options to reduce demand). There is no shortage of recommendations as to the best way of addressing the issue (eg [9], [10]).
 - a. **Projections of oil production and demand in Australia and globally and the implications for availability and pricing of transport fuels in Australia.**
13. See copious material accessible through the AASPO web site [2] and elsewhere. AASPO believes that the peak of oil production is close (if indeed it has not already been passed) and that as a result transport fuel will be harder to obtain and will cost more in Australia.
 - b. **Potential of new sources of oil and alternative transport fuels to meet a significant share of Australia's fuel demands taking into account technological developments and environmental and economic costs.**

14. The Working Group on Urban Planning and Transport does not believe that there is any potential new source of oil or alternative fuel with the potential to make an appreciable permanent difference to Australia's impending imbalance between supply of and demand for oil. However some modes will be more affected than others. Aviation, both domestic and international, will be the worst affected, because there is no alternative to oil-based fuel in sight. Nevertheless the tourist industry, in particular, blithely uses forecasts of ever-increasing visitor numbers by air. Road transport will also be badly affected, with the commercial development of alternatives to oil estimated to be decades behind the date when it would be needed. For rail transport and sea transport, fuel problems will be less.

c. Flow-on economic and social impacts in Australia from continuing rises in the price of transport fuel and potential reduction in oil supply.

15. See general comments in paragraphs 1-11 and Professor Peter Newman's submission to the Inquiry.

d. Options for reducing Australia's transport fuel demands

16. As noted in our second paragraph, we believe that most of the options to reduce fuel demands in Australia apply mainly to urban areas. We note the imperative to reduce trip lengths as well (via land use) so as to induce a mode share swing towards more sustainable transport use: the most sustainable modes are walking and cycling, but these are only available for the short end of the trip length spectrum and hence a major swing towards these modes will have little effect on fuel demand unless accompanied by a distributional shift towards shorter trips. In future many (but not all) trips by private motor vehicles in metropolitan areas would be regarded from a national perspective as being low priority uses of scarce energy, compared to say food distribution, and hence provision of public transport, bicycle and pedestrian networks of quality throughout metropolitan areas will come to be seen as an essential public function. This will be a necessary but not a sufficient condition for State governments to undertake, and the Commonwealth should not stand by and hope that this will happen everywhere without any intervention.

Recommendations for the Commonwealth Government:

17. We suggest that the following steps should be undertaken by Federal Government as a matter of urgency.

1. That it recognise that the Age of Cheap Oil is over, and that the impacts to Australia go beyond the additional revenue to be derived from Australia's remaining energy resources as prices rise.
2. That it recognise that there is a national interest in urban transport planning, because it is in urban areas that the opportunities for mitigating the effects of Peak Oil are greater than in rural and regional areas.
3. That it seek to influence the States in their urban transport planning efforts, in particular towards providing alternatives to cars in outer metropolitan areas
4. That it review the obstacles that current taxation laws or regulations pose towards the sort of future transport that will be required, in particular:

- tax concessions (eg FBT) favouring private car use over public transport
 - tax concessions (eg the agricultural rebate) favouring rural/regional diesel use – and urban – over natural gas
5. That it review other national regulatory obstacles to low energy transport, for instance Australian legislation which denies consumers the right to buy the safest electric bicycles, as is possible in Japan, China, Canada, the US and the EU [11]
 6. That it take steps to increase and keep current its knowledge of transport-related oil issues by instituting an Australian Transport Fuel Office, analogous to the Australian Greenhouse Office . The present inquiry is a welcome first step in that direction but highlights the distance still to go.
 7. That taxation and fiscal policy instruments should encourage sustainable transport.
 8. That the AusLink federal investment program for transport infrastructure be reviewed to ensure that it offers the opportunity to develop a transport system that is integrated, more sustainable and less greenhouse gas intensive.
 9. That while recognising that the market is the appropriate mechanism to allocate resources between individual transport modes, where market forces fail to deliver environmental and social objectives Federal Government should intervene.
 10. That it support more holistic approaches that integrate environmental considerations into transport policy, planning and investment decisions. They should go beyond current Commonwealth and State and Territory environmental impact evaluations in order to examine wider impacts on health, sustainability and greenhouse gas emissions.
 11. That it support industry, innovation, and research and development policies and commitments to support the development of cleaner transport fuels and technologies.
 12. That it support research into transport pricing, economics and demand-management technologies.
 13. That it ask the States that all significant urban and industrial developments to be subject to transport impact studies with the aim of evaluating and systematically minimising future petroleum fuel use

The last six recommendations are very similar to those put forward by a sustainable transport energy taskforce of the Institution of Engineers, Australia in 1999 [12]. Refer to that report for more detailed sub-recommendations.

References

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