

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

Information about the Inquiry

Terms of Reference

Referred 29 November 2005 for inquiry and report by 15 June 2006

Australia's future oil supply and alternative transport fuels, with particular reference to:

- a. projections of oil production and demand in Australia and globally and the implications for availability and pricing of transport fuels 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;
- c. flow-on economic and social impacts in Australia from continuing rises in the price of transport fuel and potential reductions in oil supply; and
- d. options for reducing Australia's transport fuel demands.

Written submissions are invited and should be addressed to:

The Secretary

Senate Rural and Regional Affairs and Transport

Parliament House

Canberra ACT 2600

The Committee prefers to receive submissions electronically as an attached document - email: rrat.sen@aph.gov.au

The closing date for receipt of submissions is 24 February 2006.

E-mailed submissions must include your name, phone number and postal address so we can verify them.

Projections of oil production and demand in Australia and globally and the implications for availability and pricing of transport fuels in Australia

As oil is a finite resource and under increasing demand, the cost is certain to continue to rise. How fast it rises will be driven initially by the political stability in oil producing countries, and shortly after by the increasing cost of extraction. There is little doubt that there is considerable political resentment to the exploitation of oil resources by the west, with the communities of many oil producing countries seeing little benefit.

Some oil producing countries such as Russia, show every sign of using oil as a political bargaining tool to establish or re-establish global influence.

The possibility of civil war engulfing the middle east could have severe consequences for oil supply.

Oil producing countries are also starting to consider the need to conserve oil supplies, as many of them have no alternative sources of income once all the oil has been extracted.

This cost driver is being further exacerbated by the demand for oil in the rapidly expanding economies, particularly China and to a lesser extent, India.

It must be concluded that the price of oil will continue to rise, and supply is politically very vulnerable.

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.

The rising cost of oil will encourage the development of more efficient and alternative energy sources, but it must be acknowledged that there are few, if any alternative fuel sources currently available that can rival the convenience and energy density of oil. The use of ethanol for example requires re-engineering of the vehicle fuel system, and a greater allocation of farming resources to the growing of ethanol producing crops. Questions of food versus fuel, availability of land and water, and the amount of petroleum derived fertilisers necessary to maintain crop yields do not appear to have been seriously considered.

The most immediate alternative is natural gas in which Australia is self sufficient, although like petrol this is also a finite resource and will eventually be exhausted. Natural gas can therefore only be regarded as an interim solution. It would be wise for the Government to ensure conservation of this limited resource by not permitting wholesale export.

In the longer term the most promising alternative, with many alternative ways of generating, is electric power. There remain problems of storage and transmission.

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

Cheap transport has been essential for the development of Australia, to offset the vast distances on the continent. Cheap road transport has substantially changed the social and industrial fabric of Australia over the last 30 to 40 years.

40 and more years ago transport of people and goods relied primarily on shipping and railways. Slow shipping and a woefully uncoordinated and inefficient rail service reinforced local production of goods and foods. The construction of intercontinental road system and increased efficiency of road transport made possible the centralisation of production, and the interstate dissemination of food. Thus milk from Victoria can often be purchased more cheaply in Western Australia than the local product. In a modern irony it is now estimated that the transport cost component in many products exceeds the cost of manufacture.

The rising cost of fuel is likely to increase transport times as there will be greater consolidation of loads. Transport will become multimodal with ships and rail shifting the bulk of goods, and road transport used primarily for local distribution.

There could be a resurgence in the local manufacture of low value but bulky products, and in 'end finishing' of bulk manufactured goods.

Overnight transport and JIT manufacturing will disappear.

There may be a reduction in consumer choice, although 'choice' these days seems increasingly product from the same Chinese factory, but with a different label.

Private domestic use of fuel may be rationed or not available at all.

The motor car is an extraordinary phenomenon. It appeals at some basic level to humans meeting their need for utility, status display and is perceived/promoted as an expression of freedom. This appeal has resulted in urban sprawl, large scale resumption of land, domination of the street (who plays street cricket anymore), and allows us to accept the 100,000's of deaths and injuries from accidents, car pollution, increasing obesity and irrational human behaviour.

If these deaths were the result of anything else other than the car, there would be a public outcry.

The past 40 years of urban planning have been based around the motor car, with no thought given to the possibility of a reduced or non existent car future. Many suburbs could not easily exist without cars.

The car has also resulted in the destruction of local social fabric by removing the interdependency between neighbours. With the car, your social structure does not need to be within walking distance of where you live, therefore you do not need to know your neighbours.

People will not give up their vehicles willingly. The European experience has demonstrated that doubling the price of petrol has resulted in vehicle downsizing, but little else. In Australia the demand for transport fuels shows no sign of abating in Australia. The effect of a fuel price rise has been some switch to alternatives such as LPG, some downsizing of vehicles, but many people see no alternative and simply divert a larger portion of the household budget to meet the increasing cost of fuel.

The most effective discouragement is a reduction in utility with for example, severe congestion. A probable reason for this is the number of taxpayer subsidised cars, so the increased operating cost is absorbed by the taxpayer (company cars, salary packaging ect ect), whereas the loss in work time whilst sitting in a traffic jam, is absorbed by the individual.

The reduction in the availability of fuel will have a far greater impact than rises in price. There is a public expectation or belief that petrol will always be around or 'technology' will find a suitable alternative. There seems little thought that either of these possibilities might not be true. Consequently there is little evidence of any changes in transport habits by the public.

Should petrol availability gradually decrease over a 20 year period, then it is likely that society would adapt. However if petrol were to suddenly become unavailable, say in 5 years time, then significant civil unrest must be anticipated.

Options for reducing Australia's transport fuel demands

Current society attitudes proclaims the rights of the individual, but corporatises responsibilities, in a complete denial of cause and effect.

Getting individuals to take responsibility for their actions is the foundation stone of any attempt at reducing Australia's transport fuel demands.

The collective actions of informed individuals will always outperform another Government dictate.

Therefore the following multifaceted approach is suggested :-

For infrastructure:

- Examination of the likely future of the airline industry and alternatives
- Examination of the potential for the re-establishment of a coastal shipping service, including port facilities, suitable types of ships (Australia does have extensive ship building experience)
- Accelerated upgrading of the rail service.
- Review of and upgrade public transport services including investigation of some modern developments such as the Bishop Austrans Light Rail system.
- Improved cycling and pedestrian facilities. (not just paths, but also end of trip facilities) – a transport **and** health benefit

And for individuals

- A graduated campaign to raise the awareness of the public about the coming petrol shortages, and the likely impact. Given that the greatest impact will happen on the current school children and subsequently their children, a school based programme is also needed
- Progressive removal of tax deductions for motor vehicle use. Where a vehicle is part of the salary arrangements either by the provision of a vehicle or as salary packaging offset, the financial benefit be at least neutralised.
- Australia wide change in vehicle and driver licensing arrangements. (see attachment)

Conclusion

Petrol will continual to increase in price as useage grows and extracted volumes fall.

There is a real risk of petrol shortages in the near future as a consequence of political rather than resource reasons.

Any sudden shortage of petrol will result in severe disruption to the manufacturing and social fabric.

There is little evidence of any serious government initiative to either inform the community, or plan for such an eventuality. Consequently there is a significant risk of civil disturbance.

There is little evidence of any government move to constrain exports to conserve alternative fuel sources such as natural gas.

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Australia wide change in vehicle and driver licensing arrangements

The current licensing system for car drivers dates from the Victorian times. The licensing arrangements where a single road test in your late teenage years gives you the privilege to drive a motor car for approximately another 60 years untested, despite radical changes in cars and traffic conditions, is unmatched.

The motorcar, so much part of our modern society, exacts a heavy toll in life and injury.

The modern car is both safe and reliable.

The variable factor is the driver.

The current licensing system does little to encourage safe driving. True there are fines and penalties, but losing one's license generally just entails a period of time before reinstatement, no test necessary.

The current system also does nothing to discourage car use.

In theory, taxation of petrol should be the ideal approach as it does reflect car usage, both in distance and driving style, and is easy to collect. However, for some reason whilst drivers may consciously recognise this connection, it does not appear to have any significant on their driving habits. The link is not direct enough.

What is proposed is to switch the licensing emphasis from the car to the driver.

The only charge registered against a vehicle would be a regular inspection fee. This could be in the form of at least an annual service by a registered garage, so effectively no charge at all.

Fuel tax would continue unchanged.

The driving license will be in the form of a prepaid card. To drive a car the license has to be inserted in a reader. The system assesses the drivers details (age, sex, penalty points), and matches them against the vehicle to be driven. Where the license is inappropriate, the vehicle will not start. Where the vehicle is suitable for the license, a charge per kilometre is calculated based on known driving risk factors. For example a 19 year old driving a Ferrari will incur a higher charge than a 40 year old driving a Barina. This charge will be deducted from the card for the distance covered by that car/driver combination. The rate might also increase with the speed of the car.

The charge will include administrative and third party insurance costs. Arrangements could also be made for private insurance firms to use the card for comprehensive insurance cover.

So the driver knows that it costs for every kilometre driven, and there must be credit on the card.

For security, a PIN number could be included.

The card will not stop one driver driving on another's license, but there does have to be a valid license in the car for it to go anywhere. As a fail safe against abuse or theft, illegal speeds for any prolonged time would cause the card to bring the car to a halt, as would running out of credit.

In the longer term the level of sophistication could increase the rate per kilometre where a drivers exceeds the speed limit, acting as an effective fine without all the associated administrative work.