Western Australian Cycling Committee C/- Sandra Rogers Department for Planning and Infrastructure 441 Murray Street PERTH WA 6000



Roxane le Guen Secretary Senate Rural and Regional Affairs and Transport Committee Parliament House Canberra ACT 2600

Dear Roxane

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

The Western Australian Cycling Committee is convened by an independent chair reporting directly to the Director General of the Western Australian Department for Planning and Infrastructure and the Minister for Planning and Infrastructure. This committee brings together representatives of State Government agencies and community groups to work collectively for promotion and enhancement of bicycle transport.

The members of the Western Australian Cycling Committee have resolved to make a submission to the above inquiry. Committee members are aware of broad issues relevant to this inquiry, but in the attached submission, have restricted comments to issues affecting cycling.

Please convey our thanks to the members of the senate for initiating this inquiry and inviting submissions. I would like to request the opportunity for the WACC to give evidence to the Senate Inquiry when it visits Perth.

Yours faithfully

Alexandra Piper Chair Western Australian Cycling Committee 16 February 2006

INQUIRY INTO AUSTRALIA'S FUTURE OIL SUPPLY AND ALTERNATIVE TRANSPORT FUELS

Submission by Western Australian Cycling Committee



Executive Summary

"It is also certain that the cost of preparing too early is nowhere near the cost of not being ready on time".

WA Planning and Infrastructure Minister, (MacTiernan (2004)) very presciently said this about Peak Oil when opening the Sustainable Transport Coalition's "Oil: Living with Less" conference in Perth in August 2004.

In a later speech, opening the Hydrogen Fuel Cell Bus conference in 2004, she also said

"..we see the urgent need to prepare for a future where the supply of cheap oil is coming to an end.

Already growth in demand for oil is probably outstripping growth in supply, but production itself is likely to peak, maybe as early as 2006. But more conventionally 2010 – 2015.

Our Government is very conscious of the vulnerability of Western Australia to such a change."

This urgency echoes the findings of the US DOE report (Hirsch et al, 2005), which documents the lead times needed to have mitigation and adaptation strategies in place before Peak Oil hits.

We urge the Committee to give very high priority to recommending that Australia take immediate steps to prepare for Peak Oil. Hirsch et al (2005) points out that preparations need to be undertaken by crash programmes, 10 or 20 years before Peak Oil. We already may not have that much time, so urgent action is required at all levels of Government, but spearheaded by the Federal Government. To achieve this aim, a significant change in attitude and approach is needed both within the community and within Government.

The WACC believes it most unlikely that any single solution will solve our problem of vulnerability to declining oil production and increasing price. It is imprudent to invest all of our resources and hopes into as yet unproven technologies. The committee sees several "no regrets" options (those that are already justified on other grounds) that rely on proven technology and are useful whether or not an oil shortage eventuates. These options include:

- Greatly increased funding for development of Australian bicycle facilities and networks; (at least \$200m pa Federal funding, along lines similar to the US Federal ISTEA and TEA-21 funding programmes);
- Nationwide travel demand management using the proven Individualised Marketing strategies used in TravelSmart programmes around Australia;
- Promotion and encouragement of fuel efficient transport; especially bicycle transport; and
- Identifying and redressing policies that encourage excessive transport use.

We congratulate the Senate for initiating this inquiry and inviting submissions. We hope that there will be substantial action on a number of fronts resulting from the inquiry, given the authoritative forecasts of imminent oil shortages probably within 5-10 years or perhaps sooner.

Introduction

The Western Australian Cycling Committee (WACC) is a policy level committee that reports to the WA Director-General for Planning and Infrastructure. The following submission is the collective view of the Committee, but it has been restricted to remain within the WACC terms of reference and the areas of expertise of its members.

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

WACC members have been briefed on the decline of Australian domestic oil production and the forecasts of a final decline in world petroleum production in the near future (Peak Oil). We accept that there is considerable evidence for (Peak Oil) in the near term. We recognise that Australians are at risk from substantial liquid fuel price rises and possibly shortages when supply does not meet demand on world oil markets.

WA's Minister for Planning and Infrastructure, Hon. Alannah MacTiernan said in a speech in October 2004

"..we see the urgent need to prepare for a future where the supply of cheap oil is coming to an end. Already growth in demand for oil is probably outstripping growth in supply, but production itself is likely to peak, maybe as early as 2006. But more conventionally 2010 – 2015. Our Government is very conscious of the vulnerability of Western Australia to such a change."

This speech was not long after Dr Ali Samsam Bakhtiari of the National Iranian Oil Company had briefed the WA Cabinet on his forecast of Peak Oil occurring in 2006-2007 (Bakhtiari, 2004). Compilations of estimates of the year of the start of the decline of global oil supplies (Peak Oil) are to be found in BTRE Working Paper 61 (Martin 2005), Andrews and Udall (2003) and Hirsch et al (2005). Most forecast dates centre on the period 2010-2015 in line with the Minister's summary.

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.

This subject is outside the WACC terms of reference. Committee members are however, aware of the issues listed below, which have implications within our terms of reference.

- The rate of oil discovery is declining steeply, both in Australia and worldwide.
- Bio-fuels are feasible and important but are most unlikely to be abundant enough or cheap enough to replace petrol, as Australians have known it. For instance, if all of Australia's wheat crop was converted to ethanol, it would only replace some 9-10% of our current oil needs. Converting a vital major food source entirely into fuel is neither practical, nor morally defensible.
- Hydrogen (H₂) is an energy carrier, not an energy source, and it requires large amounts of input energy, for instance from electricity or natural gas for its synthesis.
- Natural gas and LP gas will be important but may not remain cheap or available in sufficient quantities in a world of rising oil prices.

It is unrealistic to hope that new oil discoveries, alternative fuel or a new technology will save Australians from a reality of expensive transport fuel.

WA Cycling Committee members are cautious about excessive investment of time, money and oil into new oil sources or alternative fuels. Fuel conservation, especially by substantially increasing bicycle transport usage is likely to be a lower risk and higher return investment, and more rapidly implementable than many alternatives such as gas-to-liquids, H₂ from natural gas, coal-to-liquids etc (see Hirsch et al, 2005).

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

This subject is also largely outside the WACC terms of reference. The issues listed below are mentioned because we expect them to have implications within our terms of reference.

- Rising cost of transport fuels will, without doubt, have significant economic and social effects on Australians.
- The impacts of rising fuel costs are likely to be uneven across our community. People impacted most immediately and most severely are likely to be those who are most reliant on motorised transport in their daily lives and have the least financial capacity to meet rising fuel costs. For instance, see Dodson and Sipe (2005), Robinson et al (2005).
- Economic and social impacts may be greater than simply fuel price rises as the cost of many commodities in our daily lives includes a transport fuel component.

Options for reducing Australia's transport fuel demands

The WACC recognises that much should be done to prepare for possible oil shocks and to ameliorate the short-term and long-term effects of Peak Oil. Many options to reduce Australia's demands for transport fuels are already justified on equity, environmental, health, social and economic grounds.

We would like the Commonwealth Government to progressively and substantially increase funding for high-quality bicycle transport facilities and networks. This will help to build robustness against the impact of oil price rises by providing an alternative to private car travel for many trips. This action is justified regardless of future transport fuel concerns because it offers efficient, equitable, and sustainable transport in the following ways. Bicycle transport is cheap reliable transport and very practical, particularly in the 1 to 5 km range where public transport services rarely offer adequate service. In Perth, some 50 % of trips are less than 5 km and 71% less than 10 km, all within a 15 to 30 minute bicycle trip for an adult of average fitness.

- Bicycle transport is available to more people than private car transport. Many in our community are too young to drive or unable to afford a reasonable car. 45% of WA people do not have a drivers' licence.
- Bicycle facilities are often useable by more people than cyclists. People who use wheelchairs or gophers may make substantial trips using bicycle facilities. Australia's population is ageing and the technologies of small electric vehicles like "gophers" and power-assisted electric bicycles and tricycles are improving rapidly. Hence, there is likely to be a substantial increase in demand for safe convenient facilities for ultra-low powered vehicles for the elderly and others who use these vehicle types.
- Bicycle transport provides the extra physical activity needed to reduce Australia's obesity epidemic, especially for school-children but also for adults. Physical activity is also important for improving mental health. The flow on savings in health costs from increased bicycle transport usage would be very substantial indeed, and have been documented in a number of reports (Mason, 1999, Roberts et al, 1996 and Bicycle Victoria, 2000).
- Bicycle transport is non-polluting, and reduces local city air-quality problems and traffic noise as well as national CO₂ emission levels.
- People using bicycle transport options can reduce the motor-vehicle traffic on our city road networks, reducing congestion and improving efficiency for those who do remain as motorists.

A more detailed assessment of strategies to increase bicycle transport usage is available in the Sustainable Transport Coalition's Bicycle Transport Policy, 2003 and in Department for Planning and Infrastructure's 1996 publications "Bike Ahead: Bicycle Strategy for the 21st Century" and "The Perth Bicycle Network Main Report".

Australia is a leader in individualised marketing of sustainable transport modes. These programs have achieved high benefit /cost ratios and decreases in fuel usage of around 12-13% overall. Increased government support for these programmes would achieve significant transport fuel savings, much more rapidly and cheaply than many other mitigation and adaptation options. (Robinson, 2004, Socialdata 2004 and Department for Planning and Infrastructure TravelSmart Individualised Marketing at http://www.dpi.wa.gov.au/travelsmart/1637.asp)

Fuel shortage emergencies: The role of bicycle transport:

It is quite possible that another sudden emergency in oil supplies may occur, for instance as the result of political turmoil in the Middle East. If fuel was in serious short supply, public transport systems could not cope with substantial increases in peak hour patronage above current levels (due to shortages of rolling stock; buses and trains), and limitations on permanent way capacity (Sydney and Melbourne train systems). In this case, the only available vehicular transport mode with spare rolling stock, and spare permanent way capacity would be bicycle transport. There are very large numbers of under-utilised bicycles in sheds (more bikes are sold each year than cars in Australia), and in the event of fuel shortages or petrol rationing, there will probably be lower speed limits imposed, and certainly much less car traffic on the roads. This would greatly improve conditions for cyclists and further encourage people to use bicycle transport. Indeed, in an emergency, it would be quite possible to allocate some road space from car lanes to bicycle lanes for the duration of the fuel shortages.

Conclusion

WA Planning and Infrastructure Minister, (MacTiernan (2004)) very presciently said about Peak Oil when opening the Sustainable Transport Coalition's "Oil: Living with Less" conference "It is also certain that the cost of preparing too early is nowhere near the cost of not being ready on time."

This urgency echoes the findings of the US DOE report (Hirsch et al, 2005) which documents the lead times needed to have mitigation and adaptation strategies in place before Peak Oil hits.

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References:

Andrews, S and Udall, R (2003) "Oil Prophets: Looking at World Oil Studies Over Time" Proc. 2nd International Workshop on Oil Depletion, Paris, France, May 26-27, Ed. K. Aleklett, C. Campbell and J. Meyer, http://www.aspo-australia.org.au/References/Andrews-IWOOD2003.doc

Bakhtiari, A M Samsam (2004) "World oil production capacity model suggests output peak by 2006-07", Oil & Gas Journal, 102 (16) April 26th 2004 http://www.aspo-australia.org.au//References/Bakhtiari-O&GJ-April%202004.doc

Martin, L. (2005) BTRE Working Paper 61. "Is the world running out of oil? A review of the debate" http://www.btre.gov.au/docs/workingpapers/wp61/wp61.aspx

Dodson, J and Sipe, N (2005) "Oil Vulnerability in the Australian City" http://www.griffith.edu.au/centre/urp/URP RP6 OilVulnerability Final.pdf

Denniss, R (2003) "Implementing policies to increase the sustainability of transport in Australia". Proc. 'W.A.: Beyond Oil?' conference, Perth, February 2003 see www.STCwa.org for more information about this conference.

http://stcwa.org.au/beyondoil/implementing policies.pdf

Hirsch, R.L, Bezdek, R and Wendling R, (2005) "Peaking of World Oil Production: Impacts, Mitigation and Risk Management" prepared for the US Dept of Energy

http://www.aspo-australia.org.au//References/hirsch0502.pdf

Mason C. (1999). "Transport and health: en route to a healthier Australia? The medical profession can show leadership in promoting "active transport" Medical Journal of Australia http://www.mia.com.au/public/issues/172_05_060300/mason/mason.html

Roberts I, Owen H, Lumb P, MacDougall C (1996). "Pedalling health: health benefits of a modal transport shift". Adelaide: SA Department of Transport, 1996. http://sciweb.science.adelaide.edu.au/sundries/ph.nsf

Bicycle Victoria, (2000) "Health Benefits of Cycling",

http://www.bv.com.au/file/Health%20benefits%20of%20cycling.pdf

MacTiernan, A (2004). "Is there an oil crisis?". Ministerial speech opening the STC "Oil: Living with Less" conference, Perth, 9th August 2004.

Robinson, B W (2004) "Individualised Marketing - Travel behaviour change equivalent to discovering another Iraq?". Poster and abstract presented at Third International Workshop on Oil Depletion, Berlin, May, 2004. http://www.stcwa.org.au/negabarrels

Robinson, B.W and Powrie, S. (2004) Oil depletion: the crucial factor in transport planning. Australasian Transport Research Forum, Adelaide, October 2004. http://www.aspo-australia.org.au//References/ATRF-57-Robinson-2-refs.pdf

Robinson, B.W, Fleay, B, Mayo, S.C., (2005) "Impact of Oil Depletion on Australia" Abstract and powerpoint slides from the ASPO Fourth International Workshop on Oil Depletion, Lisbon 2005. http://www.aspo-australia.org.au//References/Abstract_Lisbon_Robinson.pdf http://www.aspo-australia.org.au//PPT/ASPO2005_Robinson.ppt

Socialdata (2004) "Individualised Marketing- Reducing Car Kilometres – A Global Approach", Socialdata Australia Pty Ltd, Institute for Transport and Infrastructure Research., Poster and abstract presented at Third International Workshop on Oil Depletion, Berlin, May, 2004. http://www.aspo-australia.org.au/References/Berlin%20SocialdataPeakOilPoster LargeRes.pdf http://www.aspo-australia.org.au/References/Berlin%20Abstract%20Socialdata%20IndiMark.pdf See also www.Socialdata.de

Sustainable Transport Coalition (2004) "Oil: Living with Less", policy document, Perth, http://www.aspo-australia.org.au/References/Oil-%20Living%20with%20Less%20%20STC.pdf See also www.STCwa.org.au

Sustainable Transport Coalition (2003) "Bicycle Transport Policy", http://www.stcwa.org.au/papers/STCpolicy Bike.pdf

Parker, A, (2005) "If world oil production peaks before 2025 it puts the well being of all Australians at risk" - Appendix from submission to the Inquiry into managing transport congestion by the Victorian Competition and Efficiency Commission.

http://www.aspo-australia.org.au/References/Parker/OZoilpaperFinal05.pdf