

Mr Martin Olmos
1/14 Bligh Street
WOLLONGONG NSW 2500
olmos@tpg.com.au

Saturday, January 7, 2006

Dear Sir/Madam,

RE: OIL SUPPLY INQUIRY SUBMISSION

Please find below a submission to the Senate Inquiry into Australia's future oil supply.

I heartily welcome the Senate Inquiry into this subject. It is an area that requires significant and prompt attention by all levels of government, but particularly the Federal Government given its leadership position.

Production Peaking

It now seems clear that Australia's oil production peaked in 2000, despite very generous incentives from the government to oil companies. It also seems the world production is not keeping up with demand, as the oil price has remained very high over an extended period of time, despite various predictions that it would soon come down. On the other hand, demand continues to increase relentlessly driving spare capacity margins down, which increase the volatility in the market.

The issue of Peak Oil is now becoming more mainstream, although there still remains much confusion and talk about 'running out of oil'. We will likely *never* run out of oil. However, it seems we will have to live with less and less oil, as we run out of *cheap, easy to produce* oil. Supply will first stop growing (while demand continues to grow), and would eventually start to decline, leading to steep and permanent increases in oil prices. Even if we found large new fields, which is unlikely at this stage of the game, this would only shift the peak by a few years.

A helpful overview of Peak Oil can be found at:

<http://www.energybulletin.net/primer.php>

A great book is:

Hubbert's Peak: The Impending World Oil Shortage, by Kenneth S. Deffeyes, Princeton University Press. Deffeyes is Professor Emeritus at Princeton University, and a geologist with extensive personal experience in the oil industry.

<http://pup.princeton.edu/titles/7121.html>

Free sample chapter (a good overview):

<http://pup.princeton.edu/chapters/s7121.html>

Government Responses

Fortunately, there have been positive developments in Australian governments recently. Queensland MP, Andrew McNamara, has raised the risks of Peak Oil. You can find his speech at:

<http://www.globalpublicmedia.com/lectures/360>

Alannah MacTiernan, WA Planning and Infrastructure Minister, has acknowledged that "oil will be in increasingly short supply in the coming 10 to 20 years" and as a result launched a Transport Energy Strategy (links below). This strategy will seek to shift Perth away from its high car dependence towards more sustainable modes, such as rail, cycling, and walking.

Sustainable Transport Energy - Western Australia Government

<http://www.dpi.wa.gov.au/sustain/strategy.html>

"While the internal combustion engine, powered on carbon-based fossil fuels remains the predominant means of propulsion, it is not sustainable to consider that this will remain the case for more than one to two decades. Indeed, there is considerable argument to support a faster changeover!"

Download the interim report at:

<http://www.dpi.wa.gov.au/sustain/tescinterimreport.pdf>

Additionally, the previous deputy Prime Minister, John Anderson, acknowledged that "at some stage in the next few short years global [oil] production may very well peak" in an interview with the ABC's Barrie Cassidy from the Insiders show (ABC Insiders, 16/5/04, <http://www.abc.net.au/insiders/content/2004/s1109174.htm>): "I have to say I do share the community's quite deep concern about the outlook [of petrol prices] at the moment because it really is related to very heavy demand for fuel around the place, limitations of global refining capacity and, I have to say it, the very real prospect that at some stage in the next few short years global production may very well peak and it may be hard to increase it further at a time when countries like China, of course, are looking for a lot more fuel and even in places like Australia our dependence on oil, on petrol and transportation continues to increase. "

Risks and Problems

Australia is particularly vulnerable to higher oil prices, as our cities are highly car-dependent, with poor overall public transport and cycling infrastructure. Many Australians who have recently bought homes in our capital cities are in the outer fringes and have poor public transport and depend on their cars to travel (often long distances) to work. Given the current housing market, these Australians could be facing falling house prices and higher interest rates on their very large mortgages (brought about by high oil prices) while at the same time paying much more for petrol with few transport options. This was covered in a recent study by researchers at Griffith University's Urban Research program, which found that petrol costs have pushed 350,000 Melbourne residents into financial stress: "Continuing the present model of road-driven urban transport policy may only make any eventual adjustment to accommodate higher fuel prices more painful, complex and fractious". The study, titled 'Oil Vulnerability in the Australian City', can be found at:

http://www.griffith.edu.au/centre/urp/URP_RP6_OilVulnerability_Final.pdf

Australia's tax system contains perverse measures that need to be reformed. Why on earth do we tax good things that we want more of (jobs and income), and subsidise bad things we want less of (resource depletion, waste, pollution)? Lowering taxes of Four Wheel Drives is precisely the wrong message to send, and has made too many Australians more vulnerable to higher oil prices. Likewise, tax breaks for company cars that makes it cheaper to buy more need to be changed (I've talked to people who

would *increase* their driving to make up their kilometres and pay less tax). Part of the perversity of these tax breaks is that public transport cannot be salary sacrificed, meaning that those that impose a much greater cost on taxpayers (via congestion, accidents, health, etc) get a helping hand. I don't want government to be telling people how to travel, but I do object to my tax dollars being used to subsidise those that want to travel the expensive way.

Sadly, the issue of long term oil prices has not been taken into account in the planning and construction of our infrastructure. We have invested billions in roads such as the recent M7, which will remain for decades, without a clear picture of what oil prices will mean for its feasibility or usage levels.

Solutions

So many of the solutions that contribute to making us less dependent on foreign oil are risk free, cheap, and have collateral benefits. For example, nobody will lose votes for installing cycleways so that children can ride to school. They'd be a great way to make families less vulnerable to high petrol prices (and less angry about them). They'd be cheap in the big scheme of things, and would tackle child obesity, road congestion, parental stress, street noise, etc. So the 'downside' of building these (assuming for a moment that 'peak oil' is not a risk after all and that petrol prices go down) is that parents will thank you for healthier kids and less stress driving them around.

Building cycleways to train stations in our cities is another key priority, as well as safe bike parking at stations. Bicycles and rail working together can make a huge impact to our petrol dependence.

The **electrification of transport** needs to be a key recommendation out of this inquiry. This can be done gradually by first introducing bus transit lanes reaching to our suburbs with little current transport options. Hybrid buses can be used, and could even be designed to run collector routes in low density suburbs while on 'hybrid' mode, and then connecting to overhead wires once they join trunk routes or transitways and run entirely on electricity. As numbers grow, these can be converted into light rail lines. I commend to you a paper titled 'Electrification of Transportation as a Response to Peaking of World Oil Production', by Alan S. Drake (available at http://www.lightrailnow.org/features/f_lrt_2005-02.htm), which covers this area in detail.

We need to rebuild Australia's rail network as a matter of priority (AUSLINK and the Darwin-Adelaide line have been positive steps). We need better rail in our cities, where there is so much waste (e.g. Parramatta-Epping line, fast rail linking Newcastle, Sydney, and Wollongong, etc). There may be some opportunities in the production and use of biodiesel within agriculture. Our trade deficit could blow out if our own oil production continues to fall with no improvement in our efficiency. The federal government already funds a lot of our roads. Why not contribute to our urban rail systems, for example the Parramatta Link? Western Sydney is particularly vulnerable to higher petrol prices. Rail needs to be massively and rapidly improved. A cheaper option may be possible by at least linking the Carlingford line with Parramatta via a Y link at Clyde. An efficient Sydney is good for the whole country.

I would suggest we make an overall shift from taxing company's profits and citizen's income towards taxing the use of resources. Here's a chance to reduce personal

income tax, payroll tax, company tax, and balance these with other taxes that would provide good feedback loops to our economy, providing signals that we want. A carbon tax is the obvious example, as it would improve our economy's efficiency in using this precious resource.

We should introduce 'feebates' to encourage greater fuel efficiency, as recommended in Amory Lovins' 'Winning the Oil Endgame', available for free at <http://www.oilendgame.com/>. This is a great, detailed book that covers how we can make ourselves less dependent on foreign oil, and why it's profitable to do so.

Another suggestion is to introduce a **Federal Parking Levy**. It's hard to evade, easy to control, and most importantly it better reflects the costs to our society of cars - having an empty space in the middle of the CBD, just waiting for someone to park their car there. It would be fairer than a petrol tax, since it can be adjusted to the congestion in each area (Sydney CBD vs Parramatta CBD vs country/regional centre). It could fund a much better public transport system too, and it shifts the cost of car transport to a more variable structure, instead of the currently mostly fixed costs.

The pricing of public transport vs car usage needs to be changed. At the moment, public transport and car usage have exactly the *wrong* cost structures. Public transport should have a mostly fixed (and low) fee, wherever you go, since this reflects the mostly fixed cost of rail: it is there and it will run nevertheless. Cars, on the other hand, provide a marginal cost to society for each extra trip (congestion, pollution, parking space, and the missed public transport fee). It should therefore be priced at the individual trip level (parking, petrol, tolls) instead of as a fixed cost (rego, insurance). This would better reflect the costs of each transport medium, and thus provide more accurate signals to consumers. At the moment, it's no wonder we so often decide to drive, since the decision is made at the time of the *trip*, and the car is cheaper than the train (on the extra, marginal trip). A federal parking levy would make the variable, per trip cost of the car more visible and therefore help us make better decisions. Likewise, compulsory third party insurance could be included into the price of petrol: after all, someone that drives more is much more likely to be involved in an accident.

Recommendations

Some key priorities that I see for the government are:

- Reform the tax system, from taxing company profits and personal incomes towards taxing the use of resources.
- Fund urban rail. For example, Link Parramatta to the Parramatta Link in Sydney. The Sydney Olympics showed that when car use is managed and a good service is provided, people do use public transport. This infrastructure needs to be built now, while energy costs are not too high (we need oil to do all this).
- Increase significantly funding for better cycling facilities, in particular for trips to key rail stations and safe cycleways to schools (which would also address the very present and serious issues of child obesity, air pollution and congestion). Australia Cycling, the previous national strategy paper, states that 35% of car trips are under 5Km, a distance that takes about 15 minutes to ride. Ironically, it is these short trips that waste a lot of petrol (and create more pollution) since the engine is still cold. Cycling is a cheap, easy, and politically safe approach. The Scandinavian countries set out to do this after the oil crises of the 70s and now enjoy significant cycling percentages. It's a matter of leadership. Furthermore, Power Assisted

Bicycles may be a good alternative for many, yet the maximum capacity allowed without registration needs to be increased to cater for a woman cycling up a Sydney hill with her child, instead of a young male engineer at the RTA. A national standard needs to be set.

- Integrate cycling with public transport, rail in particular. This is a great combination since bikes drastically increase the reach of the train by increasing the 'customer base' around a station. This can be done by much better cycleways to train stations (especially large ones) and locker and shower facilities at stations.
- Support a Very Fast Train project, linking the eastern shore cities, perhaps starting with a Newcastle-Sydney-Wollongong link, which could then be extended to Canberra, Melbourne, and Brisbane. An advanced technology need not be the only option; considerable efficiencies could be gained by the realignment of tracks.
- Assume a much higher mean oil price in the planning of future infrastructure. This higher price will impact on the costs of building future infrastructure (such as rail) and also the use of the infrastructure such as motorways.
- Produce an emergency plan for the event of a sudden oil crisis, as well as a long term strategy on how Australia, and our large cities in particular, can wean themselves of excessive oil.

Important Points

A number of points need to be remembered in addressing the peaking of oil production:

- No one solution will be found that solves this problem and allows us to continue as always. A portfolio approach will need to be taken, and part of this will be behaviour changes
- It is economically rational to become efficient in our use of this precious resource. Above a basic level, there is no inherent relationship between energy use and utility or standard of living. For example, Europeans live with roughly half the energy per head than Americans or Australians do, and yet I would not consider them to be living half as well. The key issue for quality of life is *access*, not *distance travelled*.
- The issue is about *flows*, not *stocks*. It's about production, not (primarily) about reserves. It seems the common mental model for the world oil situation is that of a car's fuel tank, and thus people often talk of it in terms of 'running out', and using measures such as Reserves/Production ratios, which are very misleading.
- The key area is *liquid fuels* and *transport*. Discussion of nuclear, coal and renewables are somewhat misleading in the medium term, as the supply of electricity is not the key problem at the moment.
- Peak oil is *not* an *event*, but a *process*. We will most likely not realise we've gone through the world's peak in production until a few years after, just like it has happened in Australia: although many warned back in 2000 that we were peaking, it's not until now that we've come to accept it as fact. Furthermore, world production is likely to plateau for some years before starting a decline. For this reason, it is not helpful in my opinion to spend too much time trying to predict the exact year when we will 'peak'; it makes sense to start adapting and planning now.

- Reducing our dependence (and thus demand) for oil is by far the most effective and cheapest response to higher oil prices, and should be the first area we address instead of spending too much time trying to find new oil fields or alternative fuels (although both will no doubt play an important role).
- The hydrogen economy is *not* a real option at the moment. Hydrogen is simply an energy carrier, not a source.
- This issue is *not* solely a hobby horse of the Left (although no doubt many in the Left are very concerned). People such as Matthew Simmons, who is an investment banker and helped frame the energy policy for US President Bush, and Amory Lovins, who sets out ingenious market mechanisms to reduce oil dependence in 'Winning the Oil Endgame', have been key proponents of Peak Oil.

Please accept my sincere thanks in reading and considering my submission. I am a migrant to Australia who happily took citizenship and is humbled by the possibility of participating in our democracy in this way. As a Christian, I often pray for wisdom, integrity and courage for those in parliament, and I pray this now in relation to this issue.

Sincerely Yours,

Martin Olmos