

Dear Sir/Madam,

Please find below a submission to the Sustainable Cities 2025 Inquiry. My sincere apologies for its lateness - I have only learnt of the inquiry in the past week. I hope you may find it possible to consider my points.

I strongly support the general thrust of the discussion paper, especially points 2 and 5 on energy and transport modes.

In relation to these two points, I submit that the Standing Committee should take into consideration the issue of 'Peak Oil' in its discussion of cities of the future. With oil now at USD \$40, the Australian dollar falling, and petrol prices at \$1/litre, it is paramount that we prepare our cities for a world with much more expensive oil.

Peak Oil is the phrase commonly used to refer to the risk of world oil production reaching a ceiling and then falling after a peak. Many oil scientists calculate that world oil production will peak sometime in the next ten years. Non-OPEC production is generally considered to have peaked, making us more and more dependent on OPEC. America peaked in 1970, UK in 1999. Australia peaked in 2000, according to an oil industry paper (Woodside, below). This doesn't mean that we'll suddenly run out of oil, but that we will have to live with less and less oil. Demand would overtake supply, 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.

The Federal Government needs to follow the example of the WA government, and develop a national Transport Energy Strategy to move us away from over-dependence on foreign oil.

For example, I was very disappointed to hear of the extra subsidies for remote oil exploration in the 04 budget. There are cheaper ways to 'find' oil: in our cities, for example. We could become much more efficient in the way we use this precious resource. Funds could be provided to link Parramatta to the Parramatta Link. A cheaper option may be to link the Carlingford line to Parramatta through Clyde, perhaps avoiding some tunneling. Federal funds are provided for Sydney roads - so why not rails? Peak Oil is starting to unravel.

I have include background information on Peak Oil below.

A good introduction to the topic is:

Oil as a finite resource: When is global production likely to peak? (World Resources Institute, March 1996, Updated March 2000)

[http://www.wri.org/wri/climate/jm\\_oil\\_000.html](http://www.wri.org/wri/climate/jm_oil_000.html)

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>

The BBC has done an extensive series of articles at their BBC Online site on Peak Oil - the front article at:

When the last oil well runs dry BBC Online

<http://news.bbc.co.uk/1/hi/sci/tech/3623549.stm> Just as certain as death and taxes is the knowledge that we shall one day be forced to learn to live without oil. Exactly when that day will dawn nobody knows, but people in middle age today can probably expect to be here for it.

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 has 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!"

WA Transport Energy Strategy- Media Release

<http://www.mediastatements.wa.gov.au/media/media.nsf/9dbd10dc05971ee348256a7>

6000cc002/deb8fc1f931f0d6548256cbc0005c260?OpenDocument

An ambitious program to develop environmentally, economically and socially sustainable transport systems for Western Australia has been announced by Planning and Infrastructure Minister Alannah MacTiernan.

"WA is highly dependent on road transport, and our economy is highly sensitive to relatively small fluctuations in oil prices through its impact on transport costs," Ms MacTiernan said.

"Carbon-based fossil fuels produce environmentally harmful emissions, and oil will be in increasingly short supply in the coming 10 to 20 years. We therefore have a responsibility to diversify our sources of transport energy and move toward newer, sustainable energy sources, such as bio-fuels or hydrogen."

The WA Government's Transport Energy Strategy committee has released its Interim Report. Some quotes:

".. We do believe that there is a problem coming, and the best course of action for the community, is to:

- Understand the issue;
- prepare for the problem; and
- plan, as far as possible, for a smooth course through the coming events."

"The Government, with the community must have a strategy. Change is inevitable and a strategy will guide and ease this change. There are many possible strategic responses and tools. The primary objectives of any transport energy strategy are that mobility, for both people and goods, will be affordable, equitable, sustainable, secure and clean.

"There is uncertainty about the severity of the consequences on the economy, the environment and public health of the finite supply of oil, global warming, harmful pollutants and other factors. Nevertheless, the impact will be very significant and imminent. It is therefore unclear what will be 'good enough'. But doing nothing is not an option".

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

Some quotes from the Minister's media release:

Western Australia must act now to ensure it can sustain the impact of an oil crisis, according to a report commissioned by the State Government.

Planning and Infrastructure Minister Alannah MacTiernan has released the Interim report of the Transport Energy Strategy Committee and invited public comment.

"We must start reducing our dependence on oil, so that we are not vulnerable to the great price increases expected over the next decade as demand outstrips production," Ms MacTiernan said.

"While Australia was energy self-sufficient in 2000, by 2015 we will be importing almost 70 per cent of our oil needs.

Minister's Media Release [http://stcwa.org.au/news/1058401999\\_23913.html](http://stcwa.org.au/news/1058401999_23913.html)

The paper below from ABARE is interesting. It talks about a steep decline in Australia's production, from the industry itself (Woodside). Some quotes:  
"- Projections by Australian Government forecasting agencies indicate that Australia is facing a rapid decline in liquid petroleum production over the next decade. Liquids self-sufficiency is expected to decline from an average of 80-90% over the past decade to less than 40% by 2010. · The economic implications for Australia are significant including a rapid deterioration in Australia's trade deficit on liquid hydrocarbons (from a surplus of \$1.2 billion in 2000/01 to a projected deficit of \$7.6 billion by 2009/10). · Declining production over the next decade appears inevitable. However, options to reduce the longer-term decline are available. These will take time to implement so urgent action is required.

"Australia has been consuming oil three times faster than it has been discovering it. "During the next ten years the rest of the western world will also be facing declining indigenous production and increasing reliance on oil imports, particularly imports from the Middle East... With increasing reliance on Middle Eastern oil, the risk of such disruptions will also increase. "Despite the upward trend in exploration expenditure over recent years Australia is still not finding enough oil. "The figures also support the general view within the industry that Australia has low oil prospectivity and fields yet to be discovered are of small to medium size and becoming more technically demanding (eg heavy oil or deep water)"

World Oil Markets and the Challenges for Australia ABARE OUTLOOK  
[http://www.woodside.com.au/NR/Woodside/investorpack/SG3682\\_3\\_ABARE.pdf](http://www.woodside.com.au/NR/Woodside/investorpack/SG3682_3_ABARE.pdf)

Sure enough, ABARE has recently forecast lower energy exports for Australia, as we go down our depletion curve after having peaked in 2000:

Lower commodity export earnings in 2003-04 ABARE 22.9.03  
<http://www.abare.gov.au/pages/media/2003/22sep.html>

"Australia's commodity export earnings are forecast to fall by 3 per cent to \$84 billion in 2003-04', ABARE's Executive Director, Dr Brian Fisher, said today when releasing the September issue of Australian Commodities." Most significantly,

"Unit returns for energy exports are forecast to decline by 11 per cent in 2003-04, after a fall of 4.1 per cent in 2002-03".

In this link, you can see the drop in production, which ABARE has forecast in the paper below:

<http://www.abare.gov.au/australiancommodities/commodos/oilgas.html>

The Bottom of the Barrell George Mombiot 2.12.03

[http://monbiot.com/dsp\\_article.cfm?article\\_id=625](http://monbiot.com/dsp_article.cfm?article_id=625) "Every generation has its taboo, and ours is this: that the resource upon which our lives have been built is running out. We don't talk about it because we cannot imagine it. This is a civilisation in denial... Oil itself won't disappear, but extracting what remains is becoming ever more difficult and expensive. The discovery of new reserves peaked in the 1960s.<sup>2</sup> Every year, we use four times as much oil as we find.<sup>3</sup> All the big strikes appear to have been made long ago: the 400 million barrels in the new North Sea field would have been considered piffling in the 1970s. Our future supplies depend on the discovery of small new deposits and the better exploitation of big old ones. No one with expertise in the field is in any doubt that the global production of oil will peak before long. "

Oil Peak was recently covered on ABC Radio National Breakfast:

Dwindling Oil

<http://www.abc.net.au/rn/talks/brkfast/stories/s918926.htm>

7.30am - Thursday 7 August 2003

"The world is running out of oil and it's running out fast. Out of the estimated 2 trillion barrels of oil reserves we started off with, 900 billion have now been used. That leaves us with about 40 years of oil supplies. Even pumping the 1.1 trillion barrels of oil that remain becomes harder and harder as time goes by. As the wells are emptied, they lose pressure, slowing the flow of crude. This means we're likely to reach a peak in production well before we run out of oil altogether. Once demand outstrips supply, we can expect oil prices to skyrocket, dragging the global economy into a recession of apocalyptic proportions. To discuss this impending crisis, we are joined by a trio of experts from three continents.

Richard Hardman is the Trustee of the London-based Oil Depletion Analysis Centre and former president of the UK Geological Society. Matthew Simmons is an energy adviser to the former Clinton and current Bush administrations. He's also an energy investment banker and President of Simmons and Company, a Houston-based investment firm. Dr John Wright is the Director of the CSIRO flagship program, Energy Transformed, based in Newcastle".

Also an interesting and extensive paper from the CSIRO, Energy and Transport Sector Outlook to 2020, warns of a "significant decline in oil production":

CSIRO Energy and Transport Sector Outlook to 2020 (PDF, 3MB)

<http://www.det.csiro.au/PDF%20files/Energy%20%20Transport%20Sector%20Outlook%202020.pdf>

One of the two key drivers for change in the next decades is a "significant decline in oil production", the other being greenhouse gas emissions: "Global oil production is anticipated to peak about 2020 and production will become increasingly concentrated in the Middle East, Former Soviet Union and West Africa. Demand is forecast to continue to increase at about 2% p.a. The timing for production peaking is debatable and will depend heavily on the ability of the Middle East to attract capital and develop the very large amount of new production infrastructure required. Australia is facing a similar outlook. Oil has been consumed in Australia three times faster than it has been discovered here for the past 7 years. The petroleum industry forecasts that the need to import oil will increase rapidly from the traditional 15% up to 60% of annual needs by 2010 (Figure A.6). This will have a negative balance of trade impact of \$7-8 billion p.a. ABARE assume that higher prices will stimulate exploration and yield increased oil discoveries and forecast that this import level will be delayed to about 2020".

Colin Campbell (ASPO) discussing oil depletion

<http://www.globalpublicmedia.com/INTERVIEWS/COLIN.CAMPBELL/Colin.Cambell.2002-12-18.php>

CAMWEST - a cycling site produced by yours truly:

<http://camwest.pps.com.au/projects/oil.html>

<http://hubbartpeak.com>

I appreciate the opportunity to express my concerns and I thank the committee for its time.

Sincerely,  
Martin Olmos