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Submission on South East Light Rail

Summary

(1) The objective of light rail is to REPLACE existing car traffic, not to serve as justification for additional high rise development. The closing of Holden, profit warnings of Qantas, the closing of Clyde and Kurnell refineries, the closing of the Gove alumina refinery and the shelving of BHP's Olympic Dam expansion are all part of peak oil. The government must get used to the idea that we are going to see the end of our car culture.
(2) This means that any light rail alignment should be inside the existing road corridor, thereby closing down car lanes
(3) The NSW government, together with Councils, should build up its own internal organisation to plan, implement and operate a rolling program of light rail development in the whole of the Metropolitan area. As 100s of kms will have to be built, costs should not exceed around 20-30 million dollars per km
(4) The impact of global warming has been grossly underestimated
(5) My previous submissions on the NSW Transport Plan and the Metropolitan Strategy are part of this submission and should be read and understood.

Detailed comments on certain chapters

3.1.4 Inability to support growth 3-4
3.3 Objectives of the CSELR proposal 3-15

Comment: The objective of light rail is NOT to accommodate growth (e.g. in so-called Urban Activation Precincts forced onto Councils) which is mainly driven by a developer-friendly Federal immigration policy that has turned Sydney into an unsustainable city even at current population levels. The purpose of light rail is to:

(a) Replace **existing car traffic** in absolute numbers (and therefore reduce total fuel consumption for Sydney)
(b) Electrify the transport system to replace oil with what will ultimately be renewable electric energy

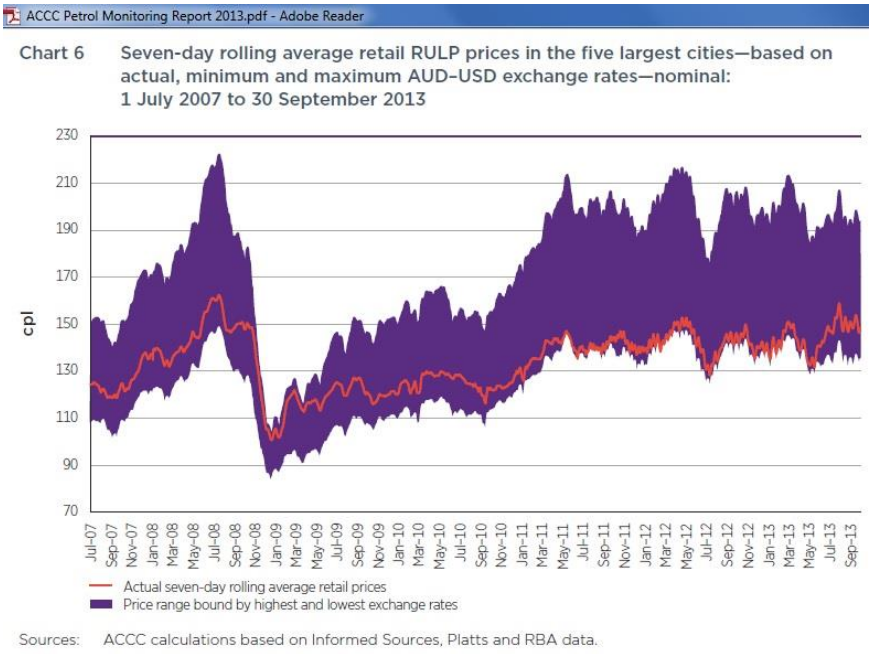
A mere increase in modal share in favour of LR (while total traffic is growing) is not sufficient to contribute to overall transport sustainability.

The logical consequence of this measurable objective is that car lanes should be closed down, to be used by light rail. When looking at the Anzac Pd alignment:

< Why is the alignment outside the road corridor?
That defeats the purpose of light rail.

There is already the M1 running parallel. That should be sufficient for the car free future.

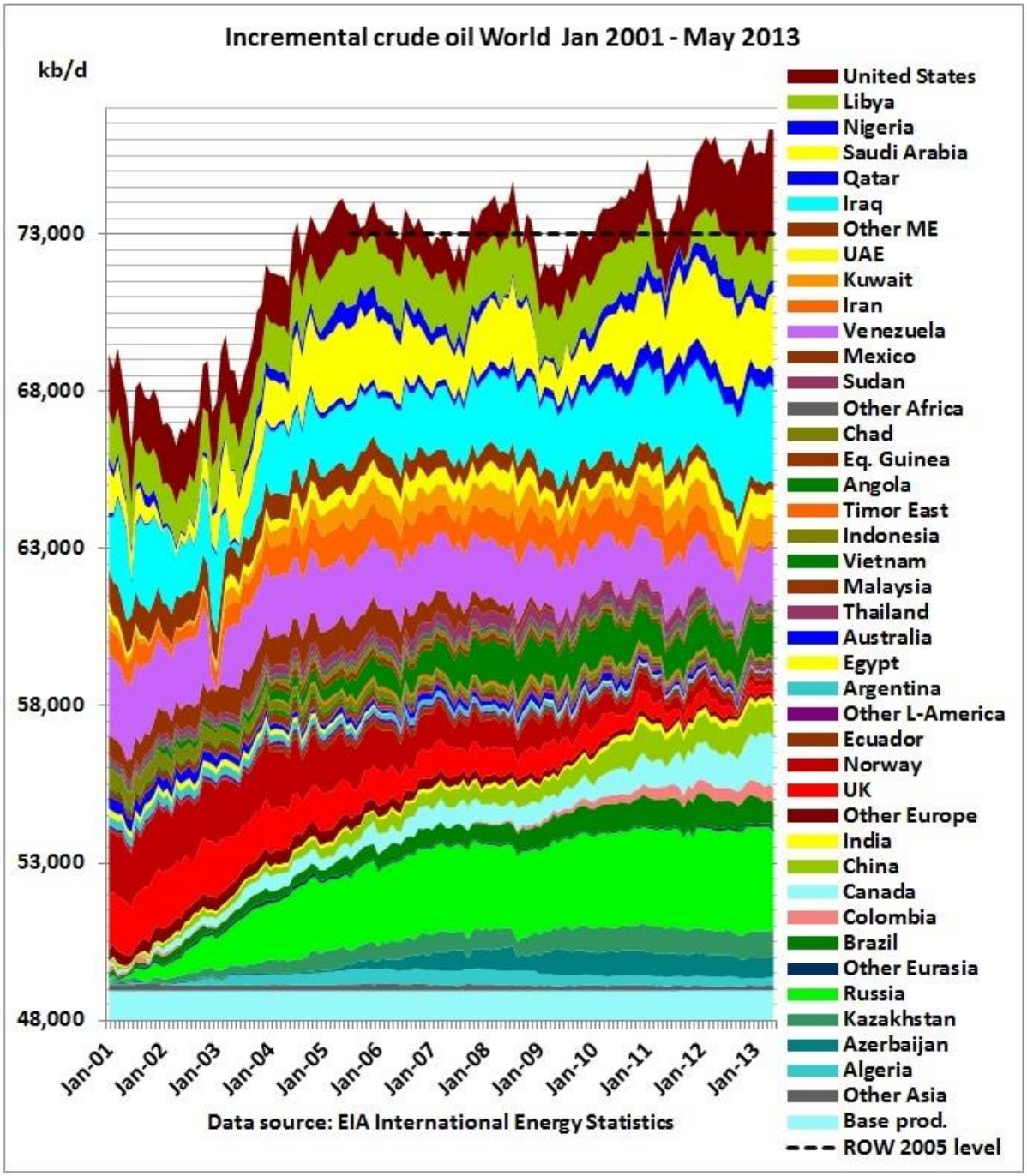
It is sheer luck that Australian motorists have not faced much higher petrol prices up to now



15/12/2013 Lucky country dodged $2 a litre bullet - for now
http://crudeoilpeak.info/lucky-country-dodged-2-a-litre-bullet-for-now

Without US shale oil, the world would be in a worsening oil crisis like in 2007/08

11/9/2013 US shale oil hides crude oil peak in rest of world



http://crudeoilpeak.info/us-shale-oil-hides-crude-oil-peak-in-rest-of-world

However, the moment of the truth is just delayed. Once US shale oil peaks – most likely before 2020 – there will be some surprises and governments would need to pray (preferably in a Mosque) that

(a) Iraq turns into the most peaceful place on Earth
(b) the nuclear deal with Iran sticks and works for ever
(c) OPEC can agree on a new quota system
(d) The Sunni-Shia conflict does not spread to Saudi Arabia
(e) No black swan event happens in the Middle East

3.2.2 NSW Long Term Transport Master Plan 3-8

Comment: Read my post:

30/4/2012
NSW Transport Master Plan debates conventional peak oil 2006, assumes continuing oil age
http://crudeoilpeak.info/nsw-transport-master-plan-debates-conventional-oil-peak-2006-assumes-continuing-oil-age

3.2.4 Sydney's Light Rail Future 3-11

Comment: Most important is that the government establishes its own light rail department which plans, builds (using subcontractors) and operates light rail throughout the Metropolitan area **in a rolling program** (as opposed to single projects**)**. This will ensure that a skilled, permanent workforce is built up. The current strategy to use outside consultants and big contractors is too expensive.

When I compare Sydney with Frankfurt I identified the year 1961 as the pivotal year where these 2 cities went different ways although they had the same problem, namely that cars and trams got stuck in traffic jams. Sydney closed down the tram lines but Frankfurt started to move trams underground and on separate track. In this way, Frankfurt not only kept its organisation alive but gave it a new challenge. Now the money has dried up for expensive metro tunnels, but new light rail sections are added every couple of years, all done in-house. Costs would be around 20 million Euro per km.

3.2.5 Draft Metropolitan Strategy for Sydney to 2031 3-11

Comment: Read my submission "The Clash between Overseas Migration, Mortgage Debt and Energy Supplies"

http://strategies.planning.nsw.gov.au/Portals/0/Documents/Submissions4/dms_2013_MattMushalik.pdf
http://strategies.planning.nsw.gov.au/MetropolitanStrategyforSydney/Submissions.aspx

3.5.1 Overview of need for the CSELR 3-25

Comment: the components of those 18,600 boardings should be calculated separately as;

(a) Modal shift from car
(b) Additional population

In an oil shock scenario component (b) will only eat up capacity for (a). In other words: if motorists are not forced into trams by closing down car lanes and trams are filled up by freshly arriving immigrants before the oil shock, the whole exercise of providing tram services for existing motorists was in vain.

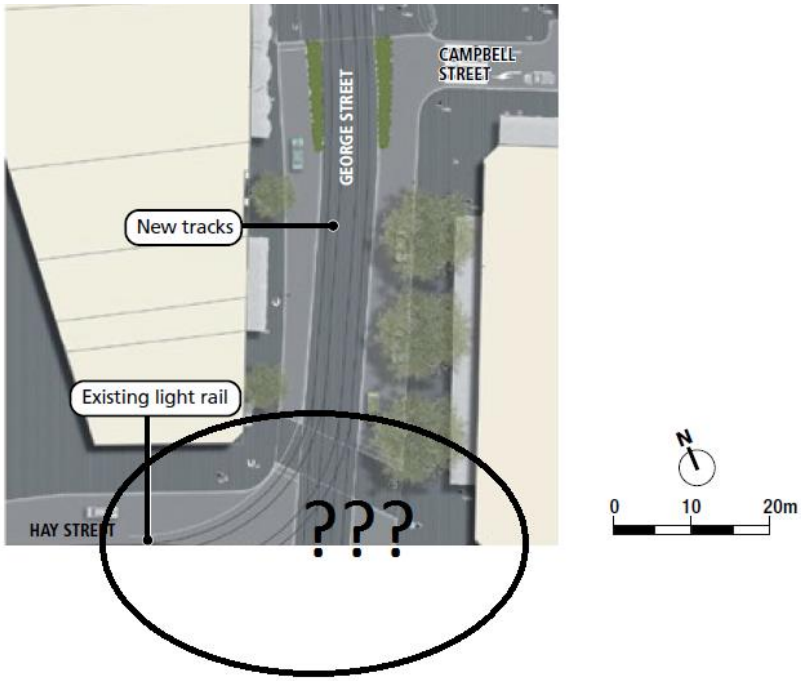
3.5.3 Economic appraisal 3-28

Comments: Benefits forgotten: reduction in oil vulnerability – the main advantage apart from lower CO2 emissions. This shows that transport planners don't have peak oil in their heads yet.

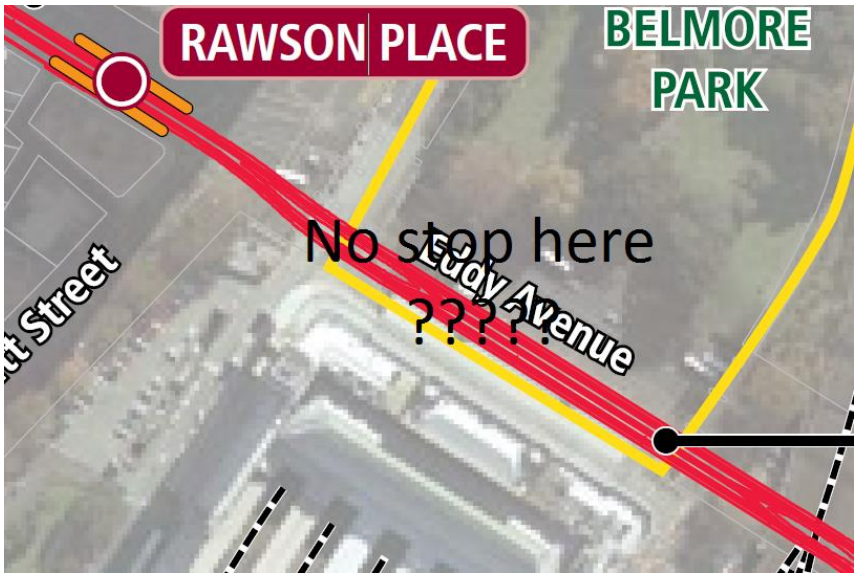
5.2.1 Proposed light rail alignment and track layout 5-10

Comments:

The plan in Fig 5.18 does not show how the stops of Chinatown and Capitol Square in Hay St (existing Light Rail to Inner West) are properly connected.



What is the function of the Rawson Pl stop in Fig 5.20? That should be moved to the front of Central Station. Why are the boarding numbers in Fig 9.7 so low for Central (477)?



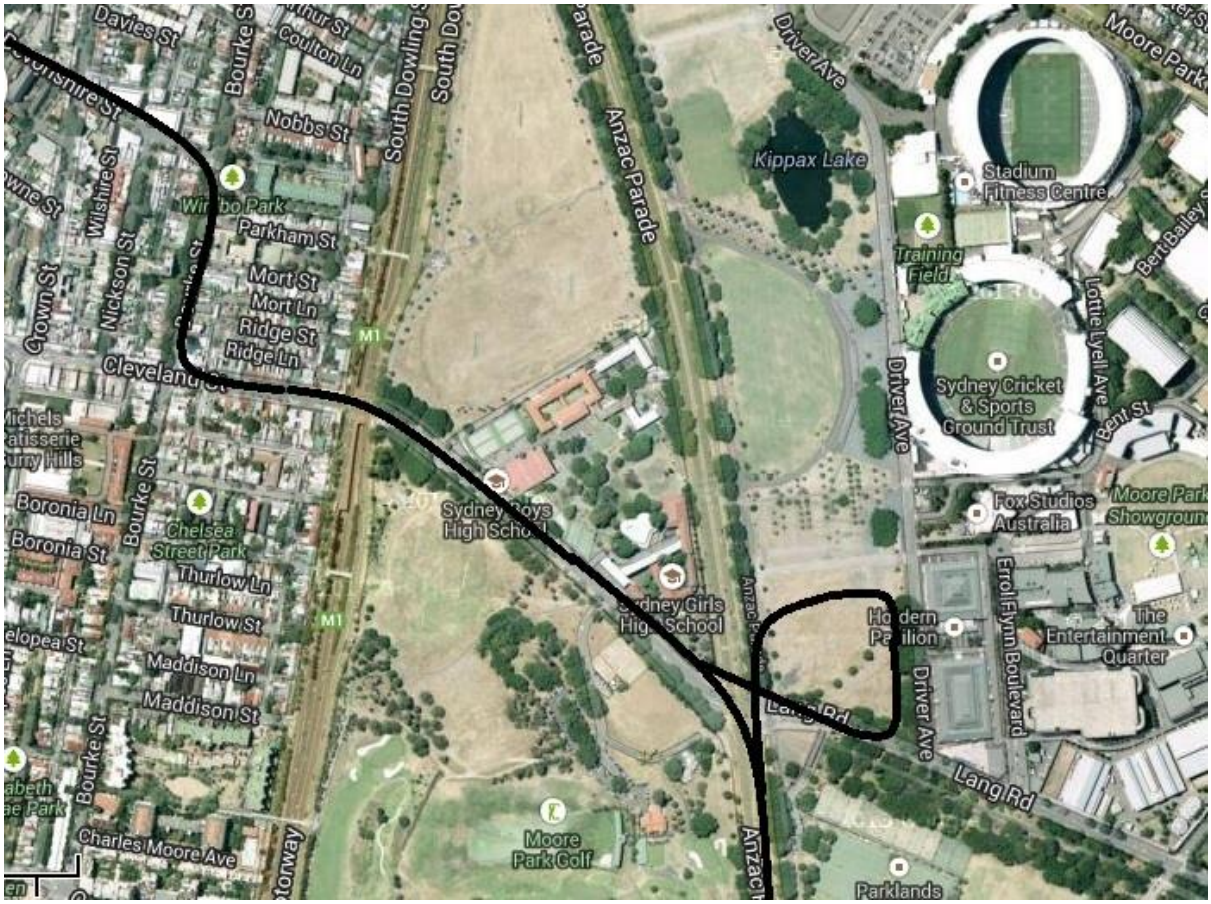
Also, no future network planning has been done to connect to Railway Square (which historically was a tram hub for trams from the West) and on to Parramatta Rd?

http://en.wikipedia.org/wiki/File:Trams_and_traffic_at_Railway_Square.jpg

Is the focus only on Westconnex?

12/11/2013
Sydney's Westconnex road tunnel proposal based on too many untested assumptions
http://crudeoilpeak.info/sydneys-westconnex-road-tunnel-proposal-based-on-too-many-untested-assumptions

The Devonshire St to Moore Park alignment (with flats in the way and a tunnel potentially flooded – see table 7.6, low boardings see Fig 9.7)) is unnecessarily costly. The cheapest way would be via Chalmers St - Cleveland St. The Cricket Ground is not used very often and could get a loop which is only served during events actually taking place. The normal stop should be at Sydney Boys High-School. Alternatively, Devonshire St – Bourke St should be considered as shown in this sketch:

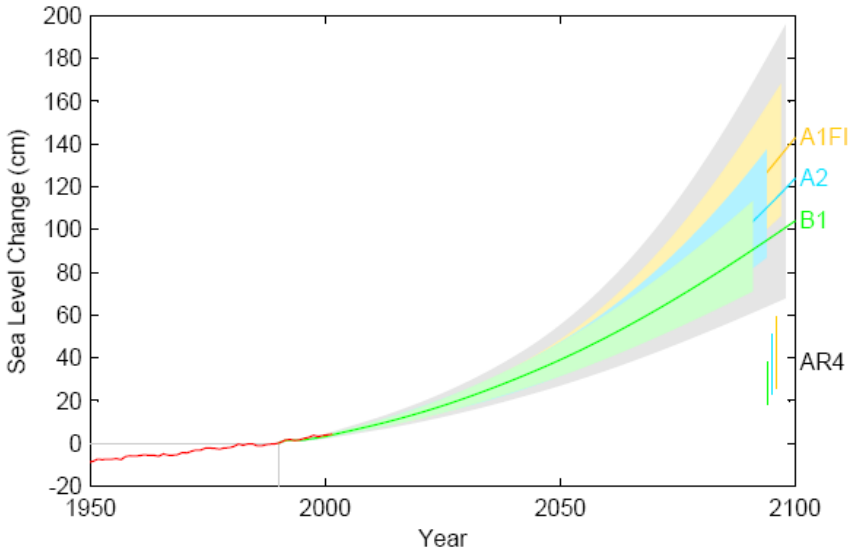


The loop could have any shape required for events as listed in Fig 9.3

7.3.2 Climate change projections 7-21

Quote: Up to 2100 — Sea level rise estimates of 18–59 centimetres, with a possible additional contribution from ice sheets of 10 to 20 centimetres (relative to 1990). Sea level rise, coupled with increased flooding would pose an increased risk to property and infrastructure. Developments near estuary entrances and beaches and on coastal floodplains are most vulnerable.

Comment: Sea level rise will be up to 2 m by 2100 which means Circular Quay (and also Barangaroo) will be flooded.



http://www.pik-potsdam.de/sealevel/

Sea level rise projection up to 1.9 m by the Potsdam Institute for Climate Impact Research

Table 3. SLR projections based on kinematic scenarios. Thermal expansion numbers are from (*22*).

	SLR equivalent (mm)		
	Low 1	Low 2	High 1
Greenland			
Dynamics	93	93	467
SMB	71	71	71
Greenland total	165	165	538
Antarctica			
PIG/Thwaites dynamics	108		394
Lambert/Amery dynamics	16		158
Antarctic Peninsula dynamics	12		59
SMB	10		10
Antarctica total	146	128	619
Glaciers/ice caps			
Dynamics	94		471
SMB	80		80
GIC total	174	240	551
Thermal expansion	300	300	300
Total SLR to 2100	785	833	2008

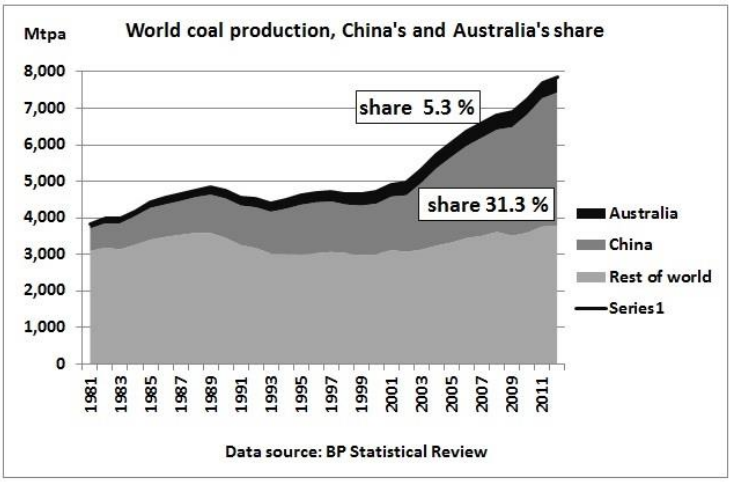
http://www.sciencemag.org/cgi/content/abstract/321/5894/1340

Sea level rise projection up to 2m by INSTAAR (Prof. Tad Pfeffer)

http://instaar.colorado.edu/people/w-tad-pfeffer/

http://www.sciencemag.org/content/321/5894/1340/suppl/DC2

Previous and current State and Federal governments have approved gigantic coal mines and terminals. They will guarantee to be a good contribution to sea level rises. Australia's coal production was around 5% of world production.



Quote: Conversely, climate change is not anticipated to present a significant risk to the construction phase of the proposal, given the anticipated timing of construction (2015 to 2020).

Comment: That is an untested assumption

<< Mini tornado in Hornsby, 19/11/2013

http://www.theaustralian.com.au/news/nation/mini-tornado-sends-roofs-and-buildings-flying/story-e6frg6nf-1226762839709#

8/3/2010

NASA climatologist James Hansen at Sydney Uni: "Australia doesn't agree now that they got to stop their coal, but they are going to agree. I can guarantee you that within a decade or so because the climate change will become so strongly apparent that's going to become imperative"

20 seconds clip:
http://www.youtube.com/watch?v=qMD2sdolPeg
Full lecture:
http://www.youtube.com/watch?v=5E5EdbiB4HU
From here:
http://www.usyd.edu.au/sydney_ideas/lectures/2010/professor_james_hansen.shtml

http://www.stormsofmygrandchildren.com/

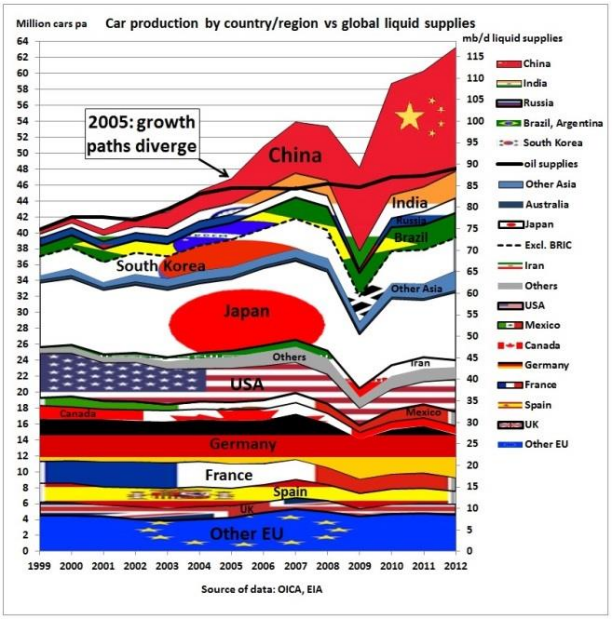
This can only mean that by 2020 global warming events will be so bad that output of coal fired power plants will have to be reduced (by load shedding). There will be competition with power hungry residential and office towers now planned for urban activation precincts, Barangaroo and many other skyscraper projects.

9.2 Regional traffic, transport and accessibility 9-1

Comment: What one would have expected in this chapter is how the CSELR would be integrated into a wider network e.g. Randwick – Bondi Junction or Central – Parramatta Rd

Prepared by Matt Mushalik, Dec 2013

Appendix



27 May 2013
World car production grows 3 times faster than global oil supplies
http://crudeoilpeak.info/world-car-production-grows-3-times-faster-than-global-oil-supplies

That's why Ford, Holden could not survive

24 million EVs in 2020 will make no difference
1 billion vehicles in year #7 of peak oil
http://crudeoilpeak.info/1-billion-vehicles-in-year-7-of-peak-oil