Submission on NSW Transport Masterplan

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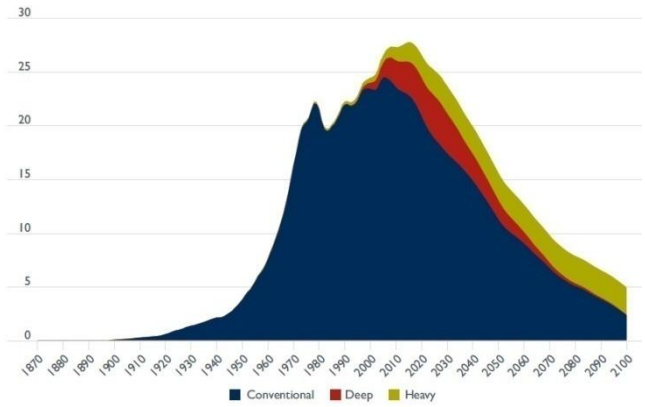

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Summary:

The NSW Transport Master Plan covers a wide range of topics, more than just transport. The list of questions is extensive, trying to give answers but leaving enough room to invite comments. This is good format.

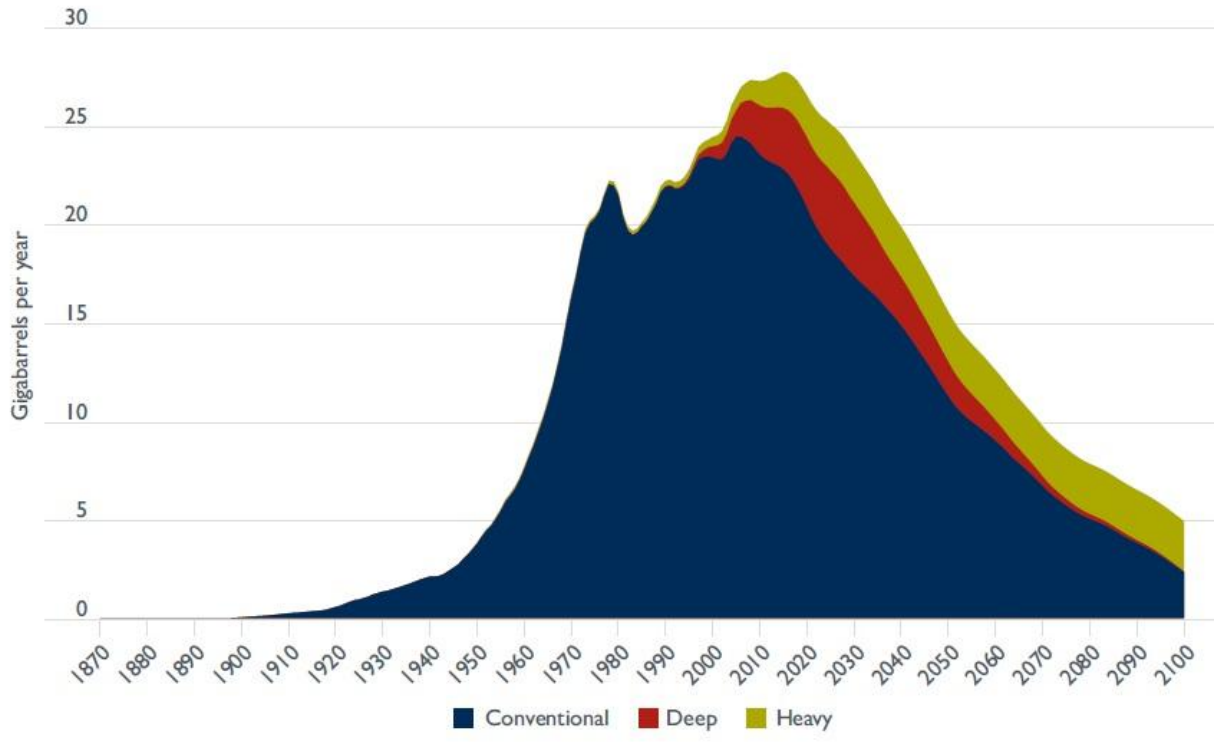
But the main problem with the "plan" is that its authors have not grasped the combined impact of peak oil, the debt crisis and global warming. The conventional oil peak of 2006 is still debated. There will never be the assumed growth projected into the future by just applying growth rates of the past. The objective must be to transition to a steady state economy. Our fossil fuel based consumer society will end, possibly by the end of this decade. The fourth problem is the disintegrating Middle East, much of it triggered and/or caused by decline in oil production in key countries like Egypt and Iran. There will be more oil wars. The time is therefore running out to get away from oil.

The transport plan lacks a cohesive and logical objective tree, free of contradictions. The plan presents a list of projects which will cancel each other out, possibly with the intention to please everyone. That is not rational planning.

In this submission, I often refer to articles on my website in which the topics have been researched with more details, statistics and graphs. They form part of my submission. I could not include them directly as the submission would have become too long. The issues raised in the transport plan are very complex. I follow their order in which they appear in the plan.

I have written a similar submission before (May 2010), for example:
http://www.crudeoilpeak.com/downloads/MetropolitanTransportPlan.pdf
but it seems transport planners have learnt nothing since then.

Figure 13.12 Components of total world crude oil production



(1) Discussion Paper Summary

Quote: "Over the next 20 years, the NSW transport system will need to change to respond to a number of major challenges."

Comment: The main challenge is **peak oil**, which started in 2005 and **triggered the GFC**. Therefore, it is 8 minutes past 12. Although a planning period of 20 years is sufficient during normal times, we are not in normal times. The government needs to go into emergency mode

Causes and Consequences of the Oil Shock of 2007–08
http://www.brookings.edu/~/media/Files/Programs/ES/BPEA/2009_spring_bpea_papers/2009_spring_bpea_hamilton.pdf

Quote: "The population of NSW will grow to more than nine million people."

Comment: That will not happen. 50% of the population growth is driven by an ambitious and unsustainable immigration program. As soon as the first petrol lines arrive at the filling stations and when motorists realize that every new immigrant will only make the lines longer in a period of permanent oil decline, they will call for a reduction in immigration. From my website:

9/4/2010 Australian Population Scenarios in the context of oil decline and global warming
http://crudeoilpeak.info/australian-population-scenarios-in-the-context-of-oil-decline-and-global-warming

Quote: "The transport system will need to support a growing economy by ensuring efficient freight movements and improved access to seaport and airport facilities."

Comment: An oil dependent economy cannot really grow if oil production does not grow. Although public transport reduces this oil dependency, current investments in the economy (additional lanes on toll-ways, new highways, more car-dependent subdivisions, subsidies for car-manufacturing etc.) do not really improve the over-all productivity in the use of oil in the economy.

7/9/2011 NSW budget 2011/12 does not increase oil use productivity
http://crudeoilpeak.info/nsw-budget-2011_12-does-not-increase-oil-use-productivity

Therefore, both problem analysis and objectives must be changed:

(a) The main transport problem in urban areas is how to replace car and truck traffic, not to provide for growth

(b) The time period for planning must be reduced to 5-10 years. Already by 2020, we are going to have a different world because of oil decline. There will be oil wars, most likely even before 2015.

(c) Freight: the focus must be on the transport of agricultural produce to cities and to export terminals. For this purpose, a revival of rural rail lines is necessary

(2) Discussion Paper Section 1

Quote: "Light rail and buses have an important role to play. They complement and support the heavy rail system, extending the reach of the transport system by cost-effectively delivering services on lower density routes."

Comment: There is a hierarchy of transport modes: regional express trains, urban commuter trains, light rail, trams and buses (see appendix A for details)

Quote: "Multimodal tickets and fares"

Comment: This has been implemented in European cities 30-40 years ago. It is incomprehensible why this has not been done in Sydney yet.

Quote: "Transit oriented development"

Comment: The strategy of TOD is being misused to force immigration driven population growth into a city which has already exceeded its limits to growth. Now that we are in year 8 of peak oil it is much too late that TOD will change a car dependent city structure which has grown over decades.

Quote: "Refocusing rail from a Sydney-centric model to a major centres model"

Comment: In the evolving era of oil decline, Sydney will disintegrate into whatever sub-centres can survive, held together with whatever electric rail is available when the curtain falls.

Quote: "The NSW Government is preparing to commence construction of Wynyard Walk, linking Wynyard Station and Barangaroo"

Comment: This is a totally unnecessary project (300 million !!) because Barangaroo itself is a CBD centric development, in contradiction to the above objective (will be flooded anyway by 2100), reflecting the harbour view mentality of the State bureaucracy which should actually look after the interests of the whole State and should not be pre-occupied with Town Planning in Sydney. Question: how many light rail kms could be built with $300 million? Fill in here:

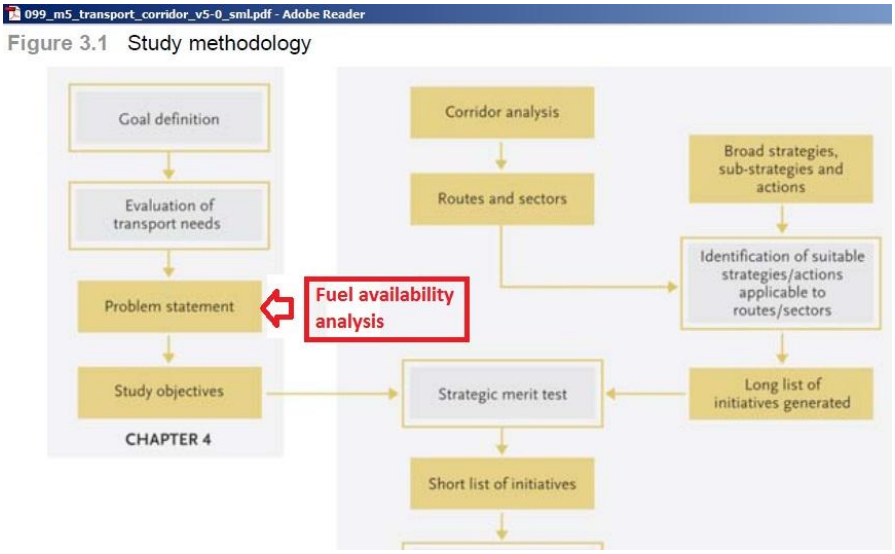
Route: …… kms:…… cost per km: ……

Quote: "Public transport priorities in the Sydney metropolitan area will be complemented by a number of road upgrade priorities"

Comment: This is also a contradictory white wash statement. If there is a priority on rail development then there should be no further investments in toll-ways

Quote: "The M5 West widening will expand the motorway from two to three lanes in each direction between Camden Valley Way and King Georges Road."

Comment: The original EIS of the M5 widening had no idea about peak oil. This project will fail



The M5 study methodology did not do any fuel availability analysis
http://www.crudeoilpeak.com/downloads/Car_pooling_and_rail_freight_for_M5_Corridor.pdf

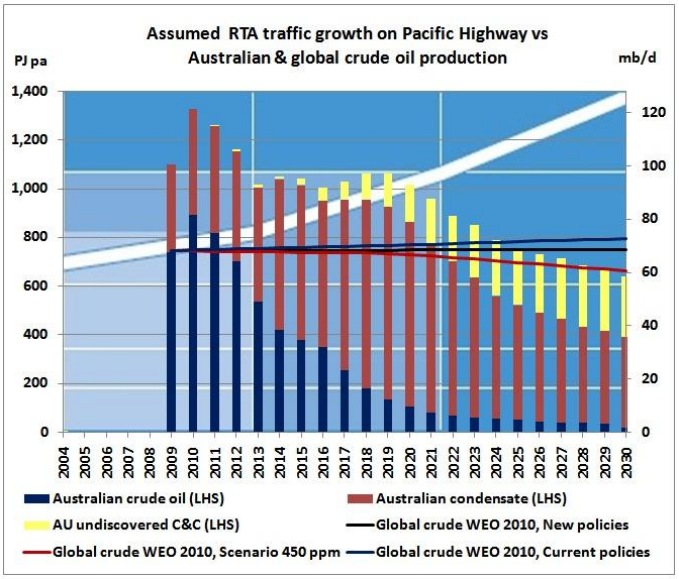
Quote: "The M2 motorway is currently being widened and four new ramps are being built to improve access to and from the motorway."

Comment: Instead of the widening of the M2, a rail line should have been built on this toll-way (Transperth model). I had a meeting with the PR manager of Transurban and told him his company will go bankrupt by or before 2015 because of the $ 5 bn debt and the vulnerability to oil supplies and fuel prices. Such a rail line would have been much cheaper than the proposed NWRL

9/12/2010 Will Transurban ever pay back its debt? (part 2)
http://crudeoilpeak.info/will-transurban-ever-pay-back-its-debt

21/9/2010 RTA fails to present business case for M2 widening (part 1)
http://crudeoilpeak.info/rta-fails-to-present-business-case-for-m2-widening-part-1

Quote: "The NSW Government is committed to making the State's roads safer and has increased the capital roads budget by $200 million to fix black spots, relieve congestion and improve road quality……The Pacific Highway is a high priority for the NSW Government."

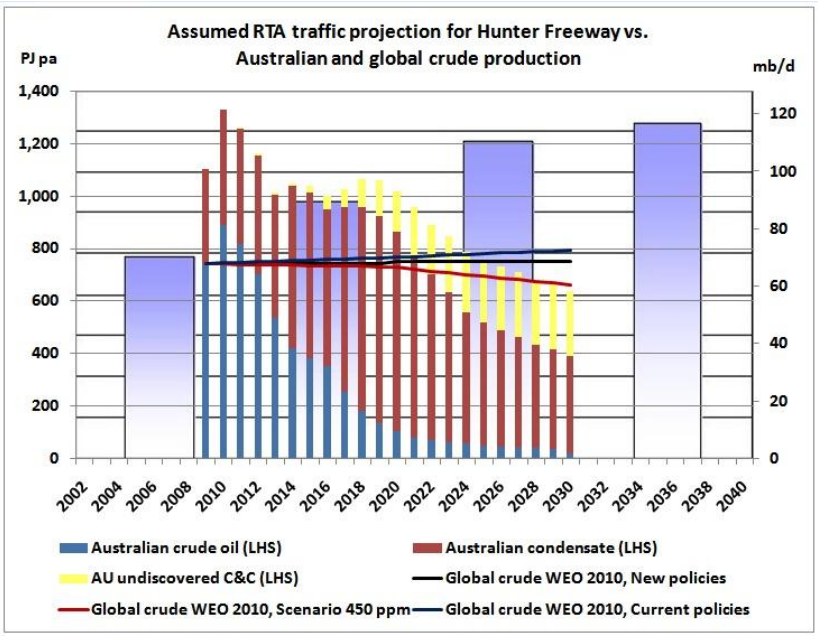


Comment: No one will argue against removing black-spots, but what the NSW government, together with the Feds, is actually doing is a systematic duplication of all highways instead of upgrading the main trunk rail lines, again without checking on future oil supplies.

<< this graph shows an irreconcilable gap between assumed traffic growth and crude oil production estimates from Geoscience Australia and the IEA (WEO 2010)

Quote: "Construction is well underway on the $1.7 billion Hunter Expressway."

Comment: This is another unnecessary project, mainly to please the coal industry. As long as the oil is still flowing and enough coal money is made to pay for high salaries and high fuel prices, this will only result in more urban sprawl of Newcastle into the Hunter hinterland. And again, the RTA is unable or unwilling to do any calculations on oil:



Quote: "The Government will continue planning and pre-construction for the remaining two lane sections of the Pacific Highway, making the upgrade of the entire corridor a priority."

Comment: The objective was "Public transport priority" which in this case would be the development of Country Link services. One contradiction after the other. The word "priority" is obviously meaningless.

(3) Discussion Paper Section 2

Question: "3.1.3 How can environmental sustainability be enhanced?"

Comment: Not by building more highway duplication as shown in Fig 7 on page 17 in section 1. And not by writing glossy, contradictory documents.

Quote: "The NSW Government is committed to working with the community to protect the environment."

Comment: Really? Look at the swath of destruction left behind by highway expansion projects

http://www.rta.nsw.gov.au/roadprojects/projects/the_hunter_region/hunter_expressway/photo_gallery.html

Question: "3.1.6 Are these the right objectives for the transport system of the future?"

Comment: No, as I mentioned above, the overarching objective is to prepare for oil decline and leave fossil fuels in the ground, for good. You don't do this by spending billions on new highways. There is no proper hierarchy of objectives, just a collection of projects the government thinks will please all people.

Quote: "Putting the customer first — to design the transport system around the needs and expectations of the customer"

Comment: The expectations of the "customers" are unrealistic. The customer has to be told that his/her life will change in the coming era of permanent oil decline because there is nothing which can replace oil except for a couple of per cent. If this is not done, there will be panic when the shortages arrive at the filling station. No government including top bureaucrats and consultants will survive this. This does not bode well:

24/2/2012
Australian Government kicks own goals in Senate peak oil debate (peaky leaks part 3)
http://crudeoilpeak.info/australian-government-kicks-own-goals-in-senate-peak-oil-debate-peaky-leaks-part-3

Quote: "Economic development — to enable the transport system to support the economic development of the State, with a focus on freight systems"

Comment: Freight by which mode? Looking at how much money is spent on highways and little on rail, the government favours trucks. Where are the calculations on future fuel supplies?

Quote: "Planning and investment — to ensure that good planning informs investment strategies"

Comment: this is not an objective, it is a means to implement projects

Quote: "Coherence and integration — to promote coherence and integration across all modes and all stages of decision-making"

Comment: What the government presently does is not coherent (see above). It would be an objective to reform the planning system.

Quote: "Performance and delivery…..Efficiency"

Comment: Also bureaucracy-internal objectives

Quote: "Environmental sustainability"

Comment: Nothing the NSW government currently does is environmentally sustainable, from promoting coal seam gas developments to keep on operating coal fired power plants. Inserting the word "sustainable" in planning documents will not achieve sustainability.

Quote: "Social benefits — to promote greater inclusiveness, accessibility and quality of life…..Safety"

Comment: yes, these are objectives in their own right. But quality of life is not defined. Continuing the current coal and fossil fuel addiction of the NSW government will mean a pro-rata contribution to more extreme weather events with more damage to properties, injuries and loss of life.

Quote: "Consideration is currently being given to how reform can allow RailCorp to deliver improved services and achieve greater efficiency."

Comment: Hopefully this does not mean to reduce staff. Government departments and agencies need to hire more engineers who can do the planning themselves instead of relying on external consultants whose commercial interest it is to drive up project costs so that their fees are higher.

Quote: "Transport for NSW works closely with a wide range of NSW Government agencies such as the Department of Planning and Infrastructure and Infrastructure NSW to ensure transport planning is integrated and reinforces the objectives of land use strategies."

Comment: The head of Infrastructure Australia, Mr Mrdak, is staunchly peak oil ignorant (see above link on his performance in the Senate hearing), and to have appointed tollway tsar Nick Greiner as head of INSW is a total disaster.

Quote: "The Metropolitan Strategy is the 20 year plan to build liveable places across Sydney"

Comment: In a seminar on the Metropolitan Strategy at the Sydney Uni I asked the DG of Planning: "Have you calculated how many million tons of coal, how many million m3 of gas and how many million barrels of oil you need to implement the strategy for, say, the next 10 years? And what is the CO2 absorption capacity of the atmosphere when burning these fuesl?" Answer: "Oh, that question is too hard" That is why the Metro Strategy will fail. Because the NSW government cannot do energy and CO2 calculations and draw the appropriate consequences.

Question: "3.2.2 How can the NSW Government work most effectively with local overnment?"

Comment: The NSW government interferes with the town planning done by Councils. A State government should do State planning, not town planning. The role of the State government should be limited to provide grants to Councils where Councils do not have sufficient funds for infrastructure. The government's imposition of population targets is especially inappropriate. As a State authority it should plan for de-centralization to regional centres outside the commuting distance of Sydney

Question: "3.2.3 How will the NSW Government work with the Australian Government?"

Comment: Federal Transport Minister Albanese told me in a climate change seminar several years ago that "we cannot solve the problem of peak oil in 5 minutes tonight". The Federal transport investments are also peak oil ignorant and therefore biased on highway development, not rail development

Question: "3.2.4 How will the NSW Government work with the private sector?"

Comment: The private sector is equally peak oil ignorant which can be seen from the fact that banks financed the M2 widening. The reader of this submission might want to check how much his or her super fund has invested in oil dependent infrastructure.

Question: "4.1 What are the major challenges with changing customer needs and preferences?"

Comment: Governments need to bite the bullet and tell the public the truth about peak oil, the debt crisis and global warming. The objective must be behavioural change, e.g. car pooling. In Fig 9, for example, transport fuel for recreation will have to be cut first. However, recently, after several good stories on peak oil, the opposite is happening. In ABC TV, owned by the government the public is factually misinformed, by star journalists Alan Kohler and Tony Jones:

7/3/2012 No number crunching in Alan Kohler's opinion piece on a premature peak oil death
http://crudeoilpeak.info/no-number-crunching-in-alan-kohler-opinion-piece-on-premature-peak-oil-death

7/4/2012 Australian ABC TV falls into oil and climate trap of unconventional oil
http://crudeoilpeak.info/australian-abc-tv-falls-into-oil-and-climate-trap-of-unconventional-oil

Quote: "There need to be carefully planned investments in public transport to make it a more attractive choice and to alleviate the pressure on the road network."

Comment: Given budget constraints, you don't do this by building more lanes on toll-ways and new highways. Motorists will have to be forced to get out of their cars. This can only happen by allowing traffic jams on roads. In the end, peak oil will do it. Wait for the oil decline at the end of the current crude production plateau.

Quote: "Like the rest of Australia, the population of NSW is ageing."

Comment: In the long-term aging is accelerated by immigration, where additional population of 20-30 years age is fed sideways into the population pyramid

Question: "4.3 What are the major economic challenges for the next 20 years?"

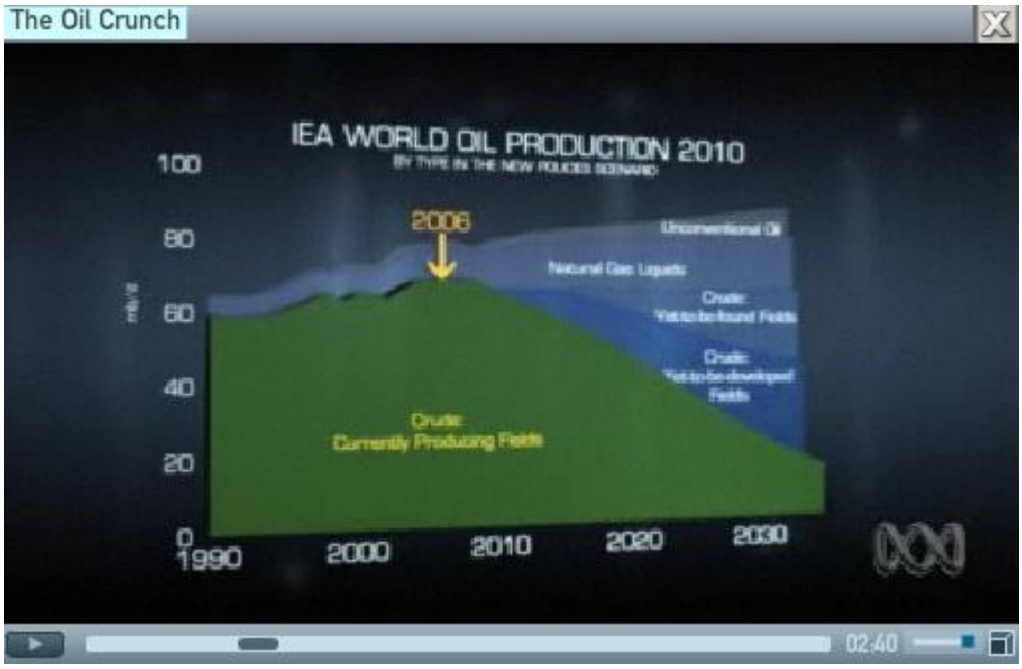
Comment:
(a) Immediate challenge: debt crisis (which was triggered by peak oil);
(b) challenge since 2005: peak oil and how the government ends its love affair with the car; (c) extreme weather events caused by global warming;
(d) how the government and its bureaucracy get rid of their fossil fuel addiction;
(e) how Sydney can start to produce something for the outside world instead of being busy with itself and being a burden for the tax-payer

Question: "4.4 What are the major energy challenges for the next 20 years?"

Comment: This question should have actually come at the very beginning. Answers have already been given above.

Quote: "The point in time when supplies of conventional oil will peak is a hotly debated topic."

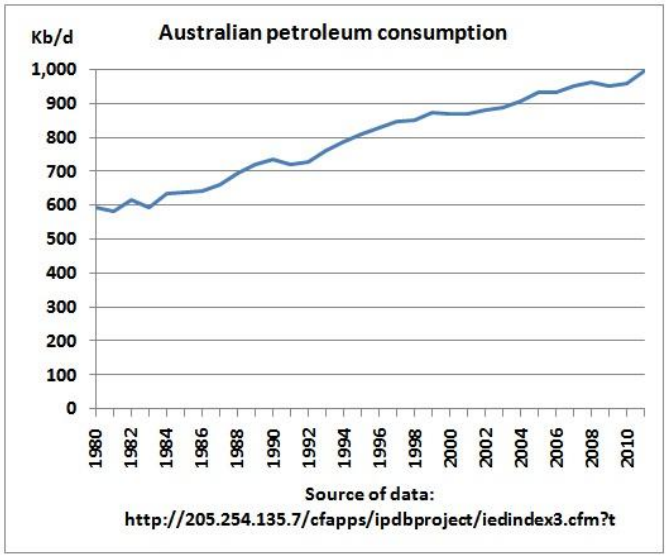
Comment: No, no longer hotly debated. The chief economist of the IEA, Fatih Birol, said in the ABC TV's "Oil Crunch" story that conventional oil peaked in 2006. The NSW government is in deep sleep mode.



http://www.abc.net.au/catalyst/stories/3201781.htm

Quote: "In Australia, demand for petroleum is projected to increase from more than 750,000 barrels per day to over 1.2 million barrels per day by 2029–30"

Comment: The demand is already now around 1 mb/d. This shows that the NSW government cannot do any oil calculations. They are not interested. They are incompetent on facts.



http://205.254.135.7/cfapps/ipdbproject/iedindex3.cfm?tid=5&pid=5&aid=2&cid=AS,&syid=1980&eyid=2011&unit=TBPD

Even blind Freddy can see that this trend cannot continue compared to the graph from BITRE 117. Increasing demand will NOT be met as supplies dwindle.

Quote: "In July 2012, the Australian Government's carbon pricing mechanism will commence, with a price that will be fixed for the first three years."

Comment: Introducing a carbon tax is a necessary, but not sufficient step to reduce emissions.

Massive investments are needed to REPLACE coal fired power plants with solar plants in the dry West of NSW, e.g. Broken Hill (using molten salt as energy storage).

It is now very late and power shortages are basically pre-programmed because increasingly violent and extreme weather events in this decade will force us to get rid of coal.

Quote: "There may be some shift to electric vehicles on NSW roads in the next few years as vehicle manufacturers bring more electric models to Australia."

Comment: A small elite of people may use EVs. But if a large percentage of motorists went electric the grid would fail. EVs just move the energy problem from oil to coal or whatever primary energy is used to generate electricity.

31/8/2011 1 billion vehicles in year #7 of peak oil
http://crudeoilpeak.info/1-billion-vehicles-in-year-7-of-peak-oil

Quote: "It is also important to note that the rail network is a large user of electricity"

Comment: **Correct. That is a real worry**. It is not just a cost issue, it will become a issue of physical availability of electric power. That is why no energy hungry projects should be added like Barangaroo, the convention centre and zillions of high rises because load shedding will be the only way to give electric trains priority. And diesel supplies for trains is even a bigger problem. I suggest the conversion of locomotives to gas.

Unfortunately, however:

11/10/2011 Australia's natural gas squandered in LNG exports
http://crudeoilpeak.info/australias-natural-gas-squandered-in-lng-exports

I hope it dawns on the reader that the whole energy and transport policy, whether on State or Federal level, is in a total mess.

Question: "4.5 What are the implications of these major challenges for future transport in NSW?"

Comment: Population growth needs to be reduced by decreasing immigration. In addition, Sydney's growth is to be curbed by de-centralization to more energy efficient regional centres outside the commuting distance of Sydney. If this is not done voluntarily, circumstances (house prices and infrastructure cost, fuel costs) will force this to happen. See answer to question 5.1.4

Question: "5.1 What are the challenges for transport in Sydney?"

Comment: To REPLACE car and truck traffic. If only 10% of motorists were to take PT now, the rail system would collapse because for decades no new rail lines were built commensurate with the size of Sydney.

Question: "5.1.1 What are the challenges for the Sydney city centre?"

Comment: Due to the PT bottlenecks in CBD rail stations (which would take billions to fix) no new commercial expansion should take place in the city.

Question: "5.1.2 What are the challenges for Sydney's regional cities and major centres?"

Comment: The biggest obstacle is the CBD-centric planning mindset of the State government and its bureaucrats.

Question: "5.1.3 What are the challenges for Sydney Airport and Port Botany?"

Comment: For the airport: availability and cost of aviation fuel. For Port Botany: how to change its role for coastal shipping and transport to warehouses and industrial parks in Sydney.

The proposed freight terminal at Moorebank

Extract: The Current Supply Chain

Sydney is Australia's largest and most densely populated city and is therefore a major goods importer and consumption point for the country. Goods are transported by road and rail, particularly from Melbourne and Brisbane, and by sea and air through Port Botany and distributed to the greater Sydney region.

At present, the freight distribution system operates radially from the busy Port Botany area. More than 90% of containers passing through Port Botany have their origin and destination within the Sydney Greater Metropolitan Area. Currently the vast majority of this freight travels by road, adding to congestion on important routes such as the M5/Hume Highway.

Analysis conducted for the Moorebank Project Office indicates that nearly two thirds of this container freight (64%) travels to and from western Sydney to local Government areas including Liverpool, Fairfield, Blacktown, Holroyd, Auburn, Parramatta, Campbelltown, Penrith and Bankstown. This has been forecast to grow to 70% by 2030
http://www.finance.gov.au/property/property/moorebank-intermodal-freight-terminal/information_paper.html

(a) Goods from and to Melbourne, Brisbane and other regional centres

The solution here are intermodal, electric trains

<<< Truck trailers loaded onto flat bed cars http://www.hupac.ch/

Truck and trailer on flat bed cars, drivers in sleeper cars
http://www.corvanklaveren.nl/Hupac/index.html

(b) Goods distributed to the greater Sydney region

The sustainable solution to bring cargo to dispersed industrial estates in the whole metro area is Cargo Trams with power from renewable energies.

http://en.wikipedia.org/wiki/CarGoTram

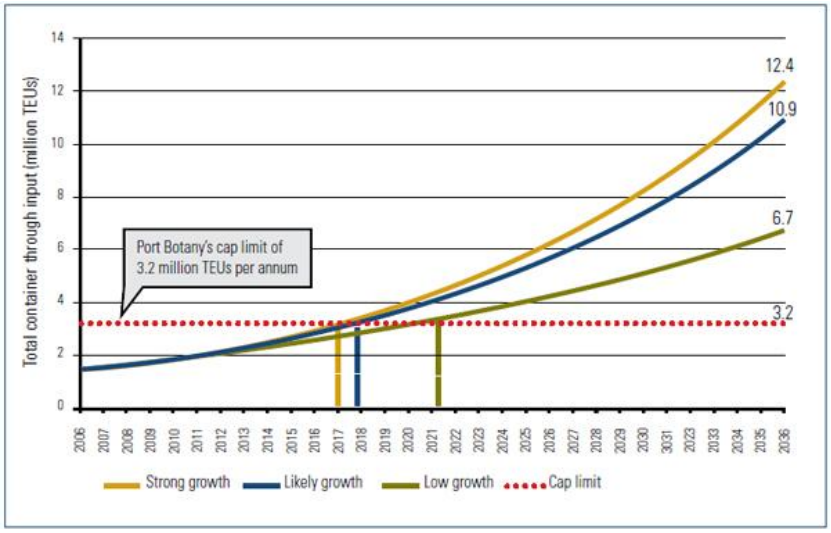
(c.) Question: How will that impact on the feasibility of the M5 widening? The M5 documentation does not show any detailed traffic projection numbers

http://www.rta.nsw.gov.au/roadprojects/projects/building_sydney_motorways/m5/m5_west_widening/documents/099_m5_transport_corridor_v5-0_sml.pdf

It refers to an IMIS report (2003)
http://www.m5motorway.com.au/PDF/M5SWEnviroImpactsReport.pdf

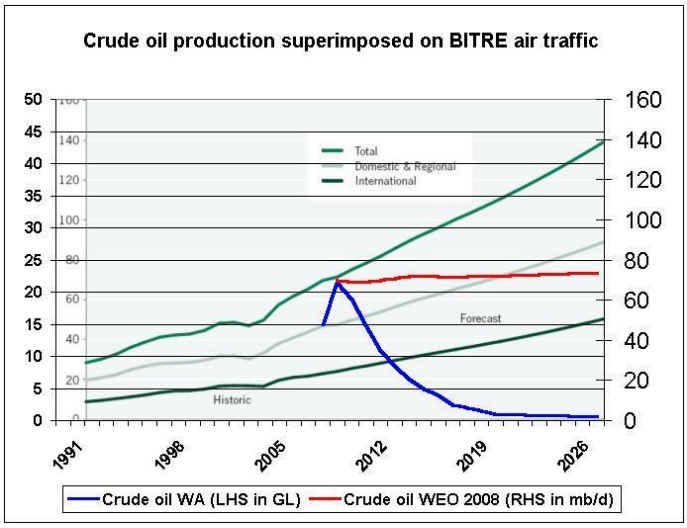
There is a table C.3 with class A1 and class A2 truck VKTs but no details on projections

On the Moorebank website no calculations are shown where the oil and energy will come from to underpin the assumed growth in container numbers:



http://www.finance.gov.au/property/property/moorebank-intermodal-freight-terminal/images/graph1.jpg

This is a comparison of BITRE's air traffic projections with crude oil decline in WA and the crude oil projection of the WEO 2008:



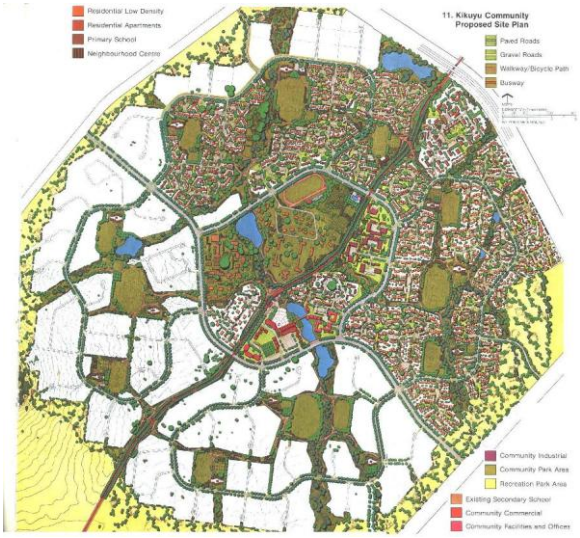
Sources: (1) http://www.infrastructure.gov.au/aviation/nap/
(2) http://www.worldenergyoutlook.org/2008.asp
(3) http://www.doir.wa.gov.au/documents/PWA_September_2008.pdf

Note that the BITRE air traffic numbers are in stark contrast to its own peak oil calculations.

Question: "5.1.4 What are the challenges for the growth centres? Over the next 20 to 30 years, the South West Growth Centre will be home to more than 300,000 people with a further 200,000 living in the North West Growth Centre."

Comment: Sustainable, that is energy frugal cities, where half of the population can walk or cycle to work would be between 150 K to 200 K (size for hospital is the critical factor to determine the minimum size), and not as satellite towns to Sydney. Sydney's West, especially the South-West, will become so hot in summer over the next decade or two that these plans should be abandoned. The NWRL is costed at 9 bn dollars. It should be calculated how much infrastructure can be financed with this money for a completely new, sustainable town where the climate is better and reduces air-conditioning requirements

Here are the plans for a sustainable city (I learned this in Tanzania when planning for the new Capital)



Left: Communities with 30-40 K population with employment and socio economic infrastructure in the centres. Right: 4 communities grouped around a common city centre with higher level infrastructure and job centres. More details are here:

26/8/2009 Sustainable Cities Master Plan
http://crudeoilpeak.info/sustainable-cities-master-plan

Question: "5.1.5 What are Sydney's strategic transport corridors? ….The future performance of these 46 corridors has been modelled using population projections and employment forecasts."

Comment: And not availability and cost of transport fuels?

Question: "5.2 What are the possible future approaches to transport in Sydney?"

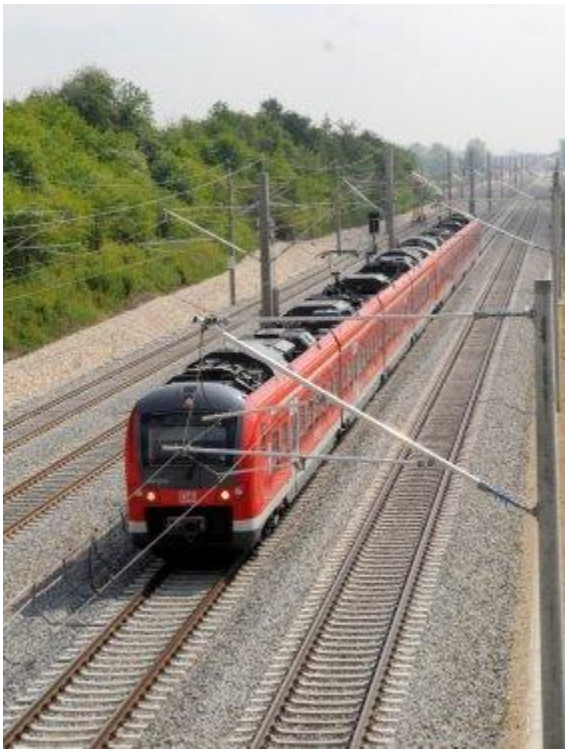
Comment: Rail on all tollways, light rail or electric trolley buses on all major roads, conversion of existing bus fleet to CNG. It should be worked out what is feasible in the next 5 – 10 years and what the priorities are.

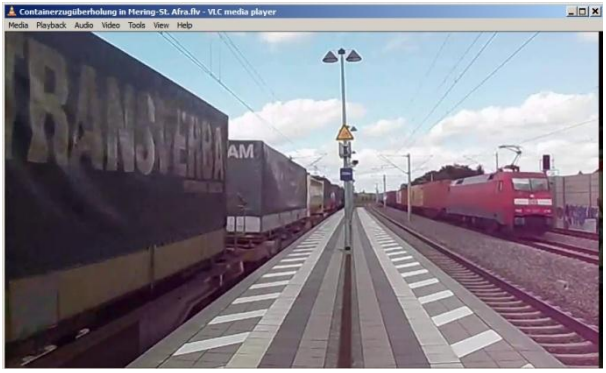
Transperth on freeway

Question: "5.2.1 How should train services in Sydney be improved? ….overall patronage could grow by 40 per cent by 2031……high frequency all-stop services can operate on different tracks to the express services."

Comment: Patronage will grow by much more as the oil crisis will start to bite. The clearway program should be completed and the Northern freight corridor, but not just a 3rd track between Epping and Thornleigh. The whole Northern line between Strathfield and Hornsby needs to be quadruplicated. It was very shortsighted to have only 3 above ground tracks at Epping station. I put this in my submission on the Epping station EIS, but no one wanted to listen. Bus services need to be synchronised with the train timetable.

Let's have a look at the quadruplication Munich - Augsburg, 44 kms upgraded, not just 6 kms of 3rd track
http://en.wikipedia.org/wiki/Munich%E2%80%93Augsburg_railway





Left: Regional express train; Right, top: VFT; Right, bottom: 2 freight trains

Watch the video here how a slow freight train is overtaken by an express freight train
http://www.youtube.com/watch?v=VZC9LeYlCNc
Note the truck trailers on flat bed cars left

Australia is decades behind Europe and is still dreaming of an endless oil age.

Quote: "Automatic Train Operation systems can be used to automate acceleration and deceleration of trains as well as manage the distance between them."

Comment: Frankfurt and Munich have done that already. In this way you can squeeze a couple of more trains per hr. through the tunnels. But Sydney will have to live with the slow acceleration of its double deckers (which should actually be only used for regional trains). It was a good invention at the time (I know the engineer personally) but it was misused as a quick

-fix alternative to building more rail lines or tunnels in a period when they were still cheap. However, I do not recommend to replace double deckers now. It is too late.

Quote: "Fig 18, sequencing of possible future investments in City Rail"

Comment: The NWRL link is too expensive and may develop into the same type of flop we have seen with the Rozelle mini metro

6/9/2011 NWRL: Too late for big rail tunnel projects (PDF 5.3 Mb)
http://crudeoilpeak.info/wp-content/uploads/2011/02/Too_late_for_big_rail_tunnel_projects.pdf

7/10/2009 Too late for Sydney Metro Tunnels
http://crudeoilpeak.info/too-late-for-metro-tunnels

Question: "5.2.2 How can the network of motorways and major roads be better used?"

Comment: By using them as corridors to build rail lines on them and light rail. Every year and month this solution is not followed is a lost year/month. We have already seen the X-City tunnel and the Lane Cove tunnel go broke. But this was small fish. If Transurban goes broke, 10 billion in shares and $6 bn in debt will go down the drain.

Quote: "An extension of the M4 would provide a motorway standard link between the Western Sydney Employment Area, Parramatta."

Comment: Ah, Greiner's toll-way gang at work. How does that fit into the objective of sustainability and development of public transport?

Question: "5.2.3 How should bus services in Sydney be improved?"

Comment: As above, synchronise with train time table.

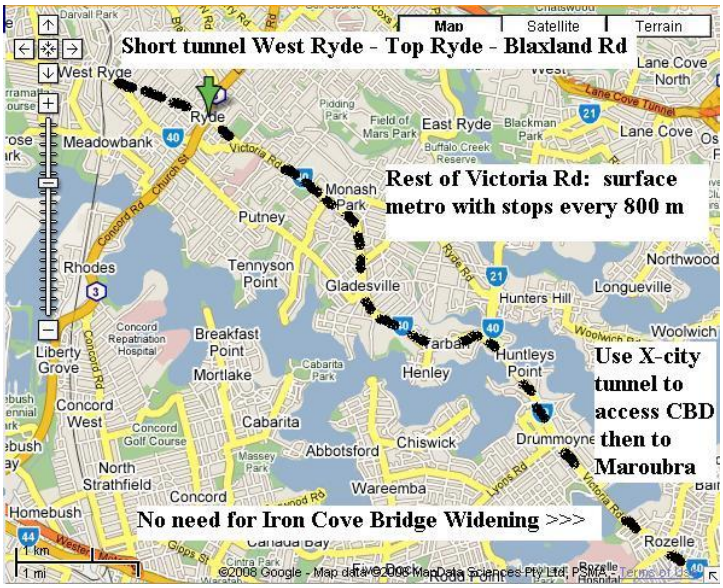
Quote: "There are now 13 new routes on the Sydney Metrobus network."

Comment: It is easy to start bus lines, but the M54 (Macquarie Park – Epping – Parramatta) , for example, uses local roads which are not designed for these heavy buses. A metro bus is not a replacement for a rail line which was cancelled by then Transport Minister Costa ("every passenger on a train costs me money")

Question: "5.2.4 What role should light rail have?"

Comment: Fig 20 shows light rail only connecting to the CBD. While this is necessary, light rail is a general solution for many other corridors, e.g from Blacktown and Parramatta to Norwest Business Park/Castle Hill and even Hornsby.

This is what has to be done on the Victoria Rd, for example:



<< This is what I proposed in a meeting with Maxine McKew, then MP of Bennelong and later PS for Infrastructure.

No action was taken and she lost her seat because she had nothing to show for.

This was my submission # 129 to the Inquiry on the Transport needs of the North West:

http://www.parliament.nsw.gov.au/prod/parlment/committee.nsf/0/f6e420e701ddb4eaca2574f00001bf7e/$FILE/Submission%20129.pdf

http://www.parliament.nsw.gov.au/prod/PARLMENT/committee.nsf/0/eeec6364aa50ca53ca2574fc007e55be/$FILE/Submission%20129a.pdf

All ignored.

Question: "5.2.6 How can cycling be encouraged?"

Comment: Close down car lanes and provide safe bike paths. There need to be more, safe bike parking facilities at rail stations

Question: "5.2.7 How can walking be promoted?"

Comment: A good starting point is "walk to school". This is important to change attitudes of children. Show business by Maxine McKew:

http://crudeoilpeak.info/solutions/walk-to-school

Quote: "Walking plays an important part in major centres and in the Sydney CBD."

Comment: When you walk in the CBD you find that pedestrian traffic lights are mostly red when you arrive at subsequent intersections. It's all optimised for cars.

Question: "5.2.8 How can more innovative use be made of taxi services?"

Comment: In evening and night hours, when buses have stopped their service (e.g. M54 ends already around 21 hrs) the train ticket should entitle the passenger to a taxi trip, together with others, along the bus route.

Question: "5.2.10 How can changing between transport modes in Sydney be improved and encouraged?"

Comment: Integrated ticketing system, timetable harmonization.

Question: "5.2.11 How can access to Sydney Airport be improved? The passenger volumes are forecast to more than double in the next 20 years. By 2029 Sydney Airport is projected to handle 78.9 million passengers"

Comment: As shown above, that will not happen as the aviation fuel will not be there to allow that growth. All Aviation green papers are ignorant of peak oil.

17/2/2010 Report card 2009 (part 2): Aviation and airport plans – pies in the skies
http://www.crudeoilpeak.com/?p=1125

17/12/2009 Aviation White Paper argues debt crisis down, ignores peak oil, means a flight path to a stormy future http://www.crudeoilpeak.com/?p=838

Desperate attempts are being made to continue business-as-usual

Lufthansa says biofuel supplies are insufficient for routine operations
http://www.dw.de/dw/article/0,,15661617,00.html

16/4/2012 Fry and Fly - the new era of sustainable aviation
http://crudeoilpeak.info/fry-and-fly-the-new-era-of-sustainable-aviation

27/2/2009 Submission Green Paper on Aviation
http://www.crudeoilpeak.com/?p=43

The high rail fares from Central to the Airport should be abolished and parking reduced at the airport.

Question: "5.2.12 Should some form of road pricing be considered?"

Comment: Road pricing should be introduced to finance the massive public transport projects needed to oil-proof Sydney

Question: "5.2.13 How can the pricing and supply of parking influence demand for private car travel?"

Comment: Basement car parking in new residential projects should be regulated even more than now. Frankfurt has a system in place whereby high penalties are imposed on car spots depending on the distance to and frequency of public transport. The closer to the next rail stop and the better the service (type of mode and frequency), the higher the parking spot levy to be paid to the Council. The argument is that if public transport is provided but not used then it has to be paid for anyway.

Question: "5.2.14 How can land use and transport be better integrated?"

Comment: there is no need to increase residential densities as peak oil will dramatically change the modal share towards higher public transport use even in low density suburbs. When diesel shortages arrive, there will be food shortages and people will need a garden to plant their own veggies to supplement what they can buy. Residents in flats will be particularly bad off. In European cities residents in flats had their allotments (victory gardens) which were part of land use planning. This is completely unknown in Australian cities, but some Councils start to think about food production in their communities.

Quote: "The NSW Government wishes to encourage more job growth close to where people live"

Comment: But the detailed planning is not right. Just check how residents in suburbs surrounding the Norwest Business Park can access their place of work in an area completely designed for the car. It is a totally hostile environment for bus users, for walking and cycling

Strategic questions:

Question: "8. What criteria should determine whether light rail or bus transport should be preferred?"

Comment: Demand, topography, cost of bus lanes vs light rail corridor, location of facilities along the route, e.g. universities, hospitals, schools, shopping and employment centres would all require light rail

(4) Discussion Paper Section 3

Question: "6.1 What are the transport requirements for regional NSW?"

Comment: Biofuels should be used in agricultural areas e.g.as E85, not burned in urban areas as E10. The government needs to pro-actively promote the establishment of E85 bowsers and assist farmers in converting their petrol vehicles.

I had advised then Premier Iemma and Lands Minister Kelly on this approach when doing a peak oil slide show at an ethanol conference in Darling Harbour. The advice was not followed.

Question: "6.2 What are the challenges and future approaches for the NSW highway network?"

Comment: There will be enormous maintenance problems as budgets will become very tight as a result of peak oil. Every m2 of additional highway duplication will be a burden.

Question: "6.3 What are the challenges and future approaches for rail and coach networks?"

Comment: revitalisation of rural rail lines where they are indispensable for the transport of agricultural produce. As a matter of priority, trunk rail lines used by CountryLink must be duplicated where single tracked, e.g. between Maitland and Brisbane, Goulburn and Canberra. And of course electrified.

Quote: "There are around 3000 kilometres of non-operational rail lines across NSW where trains have ceased operating. This land represents a valuable resource for the community of NSW."

Comment: these have to be revitalised as they have been built in an era without cars and long distance trucks. The idea to sell off the land demonstrates that the authors of this report have no idea that declining oil production means that everything will go into reverse.

Question: "6.5 What are the challenges and future approaches associated with high speed rail?"

Comment: The implementation window for HSR in Australia has long closed. The solution for replacing domestic flights of around 1,000 kms is night trains. Incremental upgrades and improvements of existing rail lines are very urgent, especially the duplication of single track sections. The only sustainable land transport for long distance is electric rail with power from renewable energies.

10/4/2011 Australia's debating club on transport fantasies after global crude oil exports peaked 2005
http://crudeoilpeak.info/australias-debating-club-on-transport-fantasies-after-global-crude-oil-exports-peaked-2005

Question:" 6.6 What are the challenges and future approaches for regional aviation?"

Comment: just like with Sydney airport, the availability of aviation fuel will be critical. One solution would be to use Australia's condensate to produce aviation fuel. The condensate is currently exported because Australian refineries are not designed to use it.

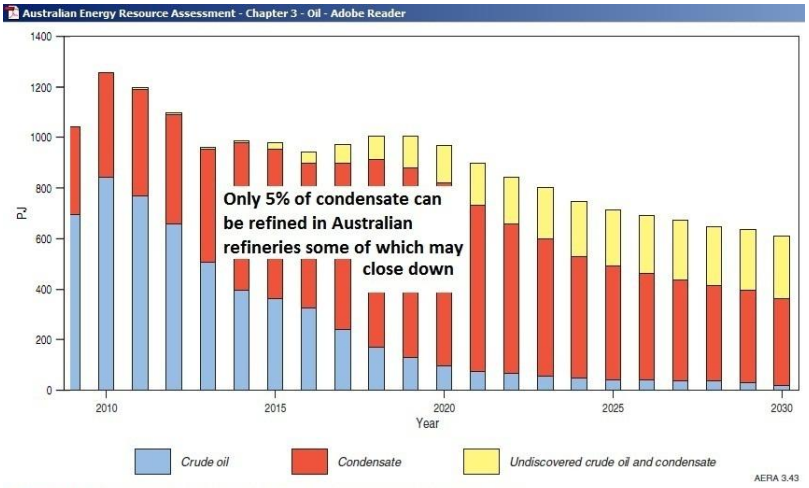


Figure 3.43 Australian oil production outlook from proven hydrocarbon basins

http://ga.gov.au/image_cache/GA16759.pdf

Details are here: http://www.darwincleanfuels.com.au/map.html

I alerted Federal Resource Minister Ferguson to this project proposal in a meeting in March 2010 (Epping Boys High Cabinet Community Meeting) but again he was not interested.

Question: "6.7.1 What are the transport challenges for the Western region?"

Comment: Try to go by train to Broken Hill (1 weekly service), the area where massive solar projects will have to be built. The trip to Broken Hill is OK, but the return trip is on the next day. If you want to return after a couple of days (less than a week) you have to take a bus to Dubbo at 3 am. Who will do that?
http://www.countrylink.info/timetables/western/broken_hill_to_sydney

Question: "6.7.7 What are the transport challenges for the Hunter?"

Comments: The future of coal is just 10 years. It is painful to see that hundreds of millions of dollars have been invested in new track just for coal trains. The laws of nature will prevail, not the coal industry and the governments who allow themselves being controlled by it. The structural changes which will be imposed on the coal industry will dwarf the changes now under way with the car manufacturing industry.

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=qMD2sd0lPeg

Full lecture:
http://www.youtube.com/watch?v=5E5EdbiB4HU

From here:
http://www.usyd.edu.au/sydney_ideas/lectures/2010/professor_james_hansen.shtml

Question: "6.7.8 What are the transport challenges for the Mid North Coast?"

Comment: Example Coffs Harbour, where I did a peak oil slide show some years ago. The problem is now that funds are wasted for a bypass and valuable farming land wilfully destroyed.

Shame on the NSW government: this is the main railway line between Sydney and Brisbane near Coffs Harbour, while massive investments are made in highway duplication of the Pacific Highway

1/4/2009 XPT Sydney-Coffs Harbour vs. Pacific Highway Upgrade
http://www.crudeoilpeak.com/?p=479

(5) Discussion Paper Section 4

Question: "7.1 What are the challenges for freight transport?"

Quote: "Approximately 220,000 tonnes of freight are transported across NSW daily, using the State's 200,000 kilometres of road and 12,000 kilometres of rail track."

Comment: priorities will have to be determined according to the different types of freight. As already mentioned before, continuing and worsening wild weather events (storms, flooding, fires) during the next years will show even blind Freddy what global warming is all about and that CO2 has to be extracted from the atmosphere for civilisation to survive.

Nature – which responds to our CO2 - will not allow this business to continue for long
http://media.rbi.com.au/MA_Media_Library/ServiceLoad/Article/coal-trains-newcastle_1_300.jpg

This will have an impact on coal haulage and also on transport of wheat and other agricultural produce which will become very erratic. Peak oil means that the economy will go into an almost permanent condition of recession, with less consumer goods carted around. Since rail lines have been neglected, coastal shipping is a solution

Question: "7.1.1 What are the challenges for import and export freight?"

Comment: That will become unpredictable once the coal and mining boom is over. China will also get stuck in peak oil. Prices of manufactured goods are already going up due to Chinese workers asking for higher salaries. Australia will have to learn again how to manufacture a certain range of basic goods itself, which is a good thing and will support jobs which will be lost elsewhere.

Question: "7.1.2 What are the challenges for rail freight?"

Comment: The biggest problem is the peak oil denial mode of Ministers and top bureaucrats. A symbol of this was the cessation of oil trains to Canberra.

How clever was that. Imagine you have diesel shortages and then road tankers bringing every drop of fuel to the Capital.

Quote: "Freight demand could double by 2031 but most of this increase is likely to be transported by road."

Comment: Definitely not. By 2031 the world will be in a deep oil crisis

Quote: "When complete in 2016, the Northern Sydney Freight Corridor will enable better coordination of freight and passenger services and will increase the corridor's freight capacity by 50 per cent."

Comment: The 3rd track Epping – Thornleigh is not enough. There remains a 2 track bottleneck at Meadowbank and the bridge over the Parramatta River, for example.

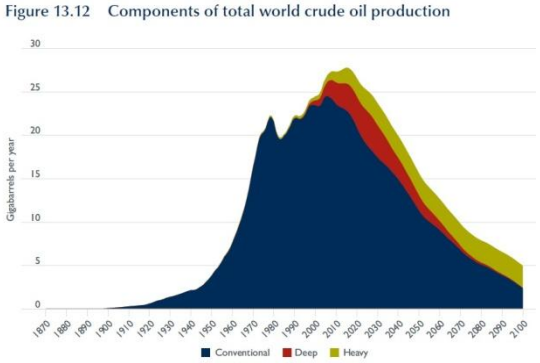
Rail bridge supports are there, but no additional track.

Question: "7.1.3 What are the challenges for grain line operations?"

Comment: This is one of the most important issues in the whole plan. Because the unwillingness of governments to prepare for oil decline this will ultimately lead to diesel and therefore food shortages because the rail lines have not been electrified for long distance transport of food and agricultural produce. One solution is to convert locos pulling grain trains to LNG. That of course requires to build up the appropriate gas supply infrastructure. Unfortunately, most of our gas is exported which will be bitterly regretted.

13/10/2011 NSW gas as transport fuel. Where are the plans?
http://crudeoilpeak.info/nsw-gas-as-transport-fuel-where-are-the-plans

Question: "7.1.4 What are the challenges for road freight?"



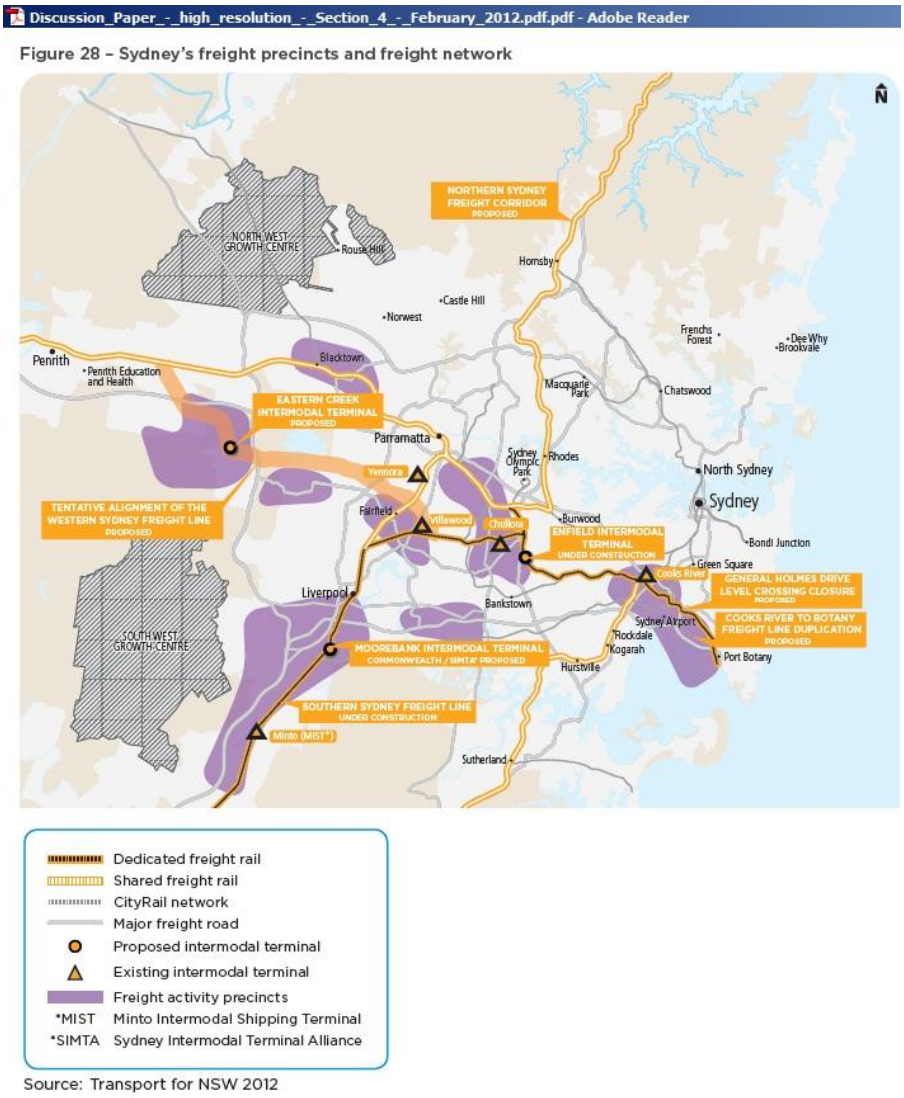
Comment: Availability and prices for diesel. Fig 27 from BITRE with growing truck traffic is in contradiction to its own report 117 on oil decline.

<< BITRE 117 report

Question: "7.2 What are the possible future approaches for freight transport in NSW?"

Comment: The 1st step is proper training on peak oil and its consequences in the next years.

Question: "7.2.1 How can more effective planning support the future freight task?"



Source: Transport for NSW 2012

The Moorebank Intermodal, not being in the centre of current freight activities, seems to be designed for future growth in the South/West and to reduce truck movements out of Botany rather than to minimize fuel consumption for the whole truck fleet in the metro area. No calculations have been made, industrial estate by industrial estate in the whole Metro area, by how much such fuel consumption can be reduced with this terminal. The location at the M5 and M7 suggests that the dependence on trucks will continue and that the problems are just moved elsewhere.

Question: "7.2.3 How should port capacity be expanded to support export and import growth?"

Comment: A proper analysis of future exports and imports should be done, in the context of peak oil, the debt crisis and global warming. A mere assumption of perpetual growth and trend projections ("Asian Century") are not good enough.

Question: "7.2.4 How can productivity be improved on the road network?"

Quote: Improving the efficiency and productivity of road freight vehicles is an ongoing priority.
The provision of more intermodal terminals around Metropolitan Sydney would more efficiently disperse freight vehicles than concentrating them in high density locations such as Port Botany.

Comment: Then why a huge Moorebank Intermodal? And the working Sydney Harbour is being destroyed by unproductive and fancy office, hotel and entertainment projects. The contradictions of the Metro Strategy couldn't be more obvious.

Question: "7.2.5 How can the use of rail be increased as the freight task grows?"

Comment: Again, this is the wrong question. The question must be: how can the present freight task be organised to reduce diesel consumption?

Question: "8.1 What are the challenges for transport funding?"

Quote: "In the 2011–12 State Budget, $6.3 billion was allocated for transport infrastructure spending in NSW."

Quote: "About 40 per cent of investment in transport infrastructure is used to maintain and upgrade the State's road network."

Comment: It is very important to distinguish between maintenance und upgrades. No details are given. Expenditure as such is also not a measure of good performance. Funds can be wasted in projects which are expensive, benefit a small constituency or are otherwise of limited use in the coming era of oil decline.

Quote: "In 2011, recognising the importance of NSW-based infrastructure to the Australian national economy, the NSW Government submitted three funding proposals to Infrastructure Australia. These are the **Pacific Highway Upgrade** (proposed **$7.7 billion** in Australian Government funding), the **North West Rail Link** (proposed reallocation of $2.1 billion in Australian Government funding), and the Port Botany and Sydney Airport Transport Improvement Plan (proposed $28 million in Australian Government funding)."

Comment: Are these the real priorities to reduce oil consumption?

Question: "8.2 What are the potential future approaches to transport funding?"

Comment: Superfunds must stop wasting the savings of employees by financing tollway and other oil dependent projects like airport expansions. Infrastructure bonds should be issued with interest paid by governments otherwise the savings will be lost.

Question: "8.2.1 Should greater use of Public-Private Partnerships be considered?"

Comment: This presentation by Jean Shaoul, Professor of Public Accountability, Manchester Business School, The University of Manchester is worthwile reading:

Abstract: The turn to private finance via Public Private Partnerships has been justified in terms of providing the additional finance that the state could not provide and/or deliver value for

money through the greater efficiency of and the transfer of risk and costs to the private sector. The ex post facto financial evidence from transport projects in the UK, in roads, rail and London Underground and road projects in Spain shows that: firstly a significant element of the charges, whether paid by the state or user, represents the cost of finance; **secondly the cost of private finance is nearly double the cost of public finance**; and thirdly this is underpinned by various forms of public support. Some of these deals have failed or had to be renegotiated. Not only do these findings undermine the arguments used to justify private finance, they also point to the way that transport policy in the future will be governed by the financial needs of the transport providers rather than the needs of the broader public and future generations.

http://sydney.edu.au/business/__data/assets/pdf_file/0014/91121/jeans-presentation.pdf

Question: "8.2.3 What role should fares play?"

Quote: "Currently, IPART estimates cost recovery from fares is around 22 per cent for CityRail and 32 per cent for buses in Sydney. This is the proportion of total operating costs covered by fare revenue."

Comment: That is shocking. However, no one would suggest to increase fares by 3 or 5-fold. Nor can the rail and bus system be closed down. This is simply the cost of running a city the size of Sydney with mono directional traffic flows to the CBD. And with new Growth Centres in green fields being planned, this will only get worse. That is why government needs to decentralize to smaller cities with much smaller transport requirements measured in passenger kms. Road pricing should be used for cross-subsidising public transport fares as PT has a much smaller environmental footprint as road traffic. The carbon tax will not help as the Federal government hasn't got the courage to apply it to fuels.

Question: "8.2.4 What are the implications for the customer?"

Strategic question #20: "How much would people be prepared to pay for further investment in the transport system and what would be the expectation flowing from these investments?

Comment: Wait until the M2 toll goes up

Details on traffic assumptions are here:

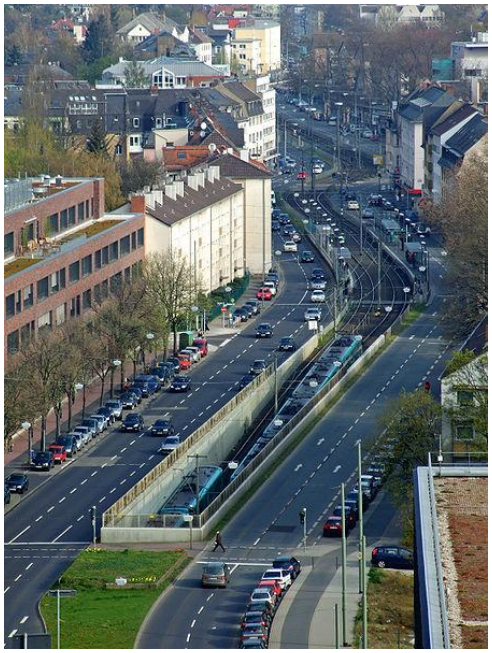
12/2/2012
Car addicted Sindney destroys bus ramp near rail hub as tollway debt increases 60% at least
http://crudeoilpeak.info/car-addicted-sindney-destroys-bus-ramp-near-rail-hub-as-tollway-debt-increases-60-pct-at-least

Appendix A: Example: hierarchy of rail services in Frankfurt

Double deckers are only used for **city express** or regional express services.

Heavy rail (S Bahn) on elevated clearway to separate long distance trains from urban rail

Metro tunnels were built in the 60s to 80s mainly in the CBD (up)



Many lines continue as **light rail** on main roads in the outer suburbs (up), some far into the regional hinterland (left)

Old style 3 unit **tram train** (75 m long), used both on low and high platforms and also in tunnels.

Standard low floor **tram** (up)

Appendix B: Recent light rail projects in Frankfurt:

Extension of tram 18 into new suburb (3.5 km for 55 million Euro or AU$ 20 m / km)



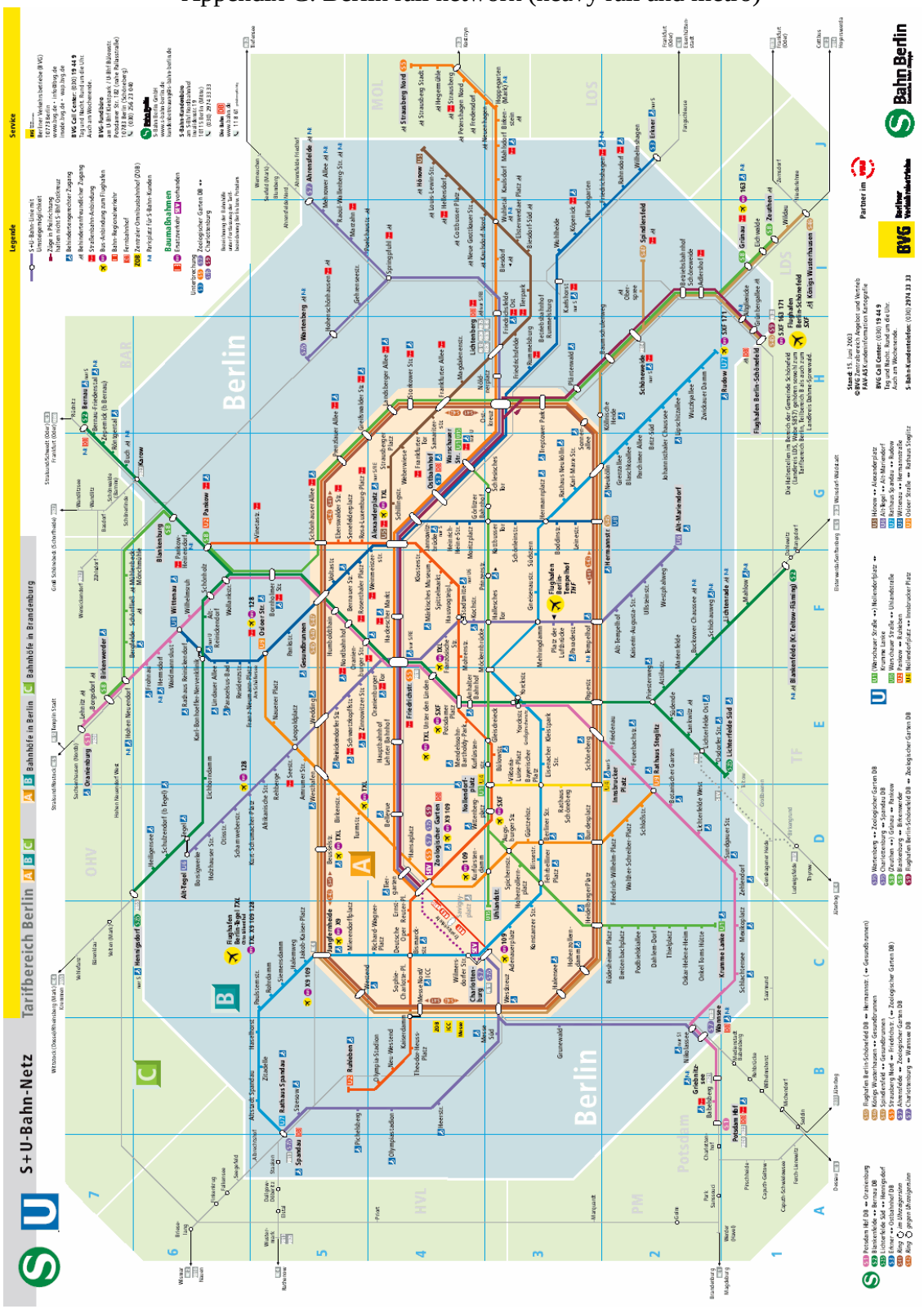

Tram service is provided as construction of suburb is still underway. Buses can use paved tram track corridor

Extension of light rail U8 and U9 to new campus of Goethe University and staff housing


Sydney should spend $9bn earmarked for an expensive NWRL (just 20 kms) for such light rail solutions. Using the above cost (standard is equal to light rail) that would make 450 kms!!! Every Council's wish for a rail connection could be fulfilled. The problem now is of course the time available before the big bang in the Middle East. And the political insight and will.

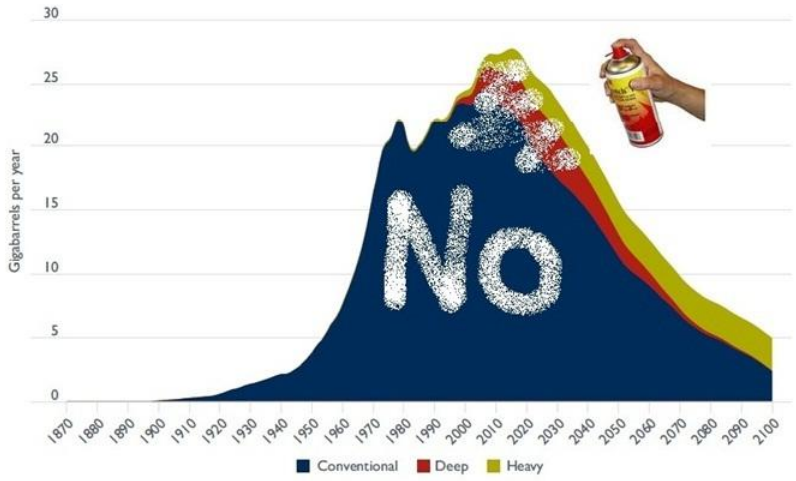
Rolling stock is from Bombardier http://en.wikipedia.org/wiki/Flexity_Swift

Appendix C: Berlin rail network (heavy rail and metro)



Rail network of a 3.5 million city: Berlin. Most of the heavy rail network was built up in an era with few cars and long distance trucks. It will be impossible for Sydney to catch up. Decades of freeway development and neglect of the rail network will have severe consequences. The NSW government still has not grasped what task is ahead to oil proof Sydney, within a quite limited time and budget framework.

Submission on 2011 Energy White (Wash) Paper
or
Peak oil denial not yet peaked



Senator LUDLAM: You can table it, Minister.
Senator [Kim] Carr: The answer is no.

Prepared by Matt Mushalik (MIEAust, CPEng) March 2012 mushalik@tpg.com.au

This 40-page paper describes what peak oil is all about. While the peak oil debate is transfixed on the global peak, oil production has already peaked in so many countries that serious damage to their economies has already occurred which is getting worse year by year.

Submission 198 on Energy White Paper
http://www.ret.gov.au/energy/facts/white_paper/submissions/Pages/submissions.aspx
http://www.ret.gov.au/energy/Documents/ewp/draft-ewp-2011/submissions/198.Matt-Mushalik.pdf

Better quality version on my website under downloads
http://crudeoilpeak.info/downloads
http://crudeoilpeak.info/wp-content/uploads/2012/04/Submission-On-2011-Energy-White-Paper_Mushalik.pdf