From:	noreply@feedback.planningportal nsw.gov au on behalf of Planning Portal - Department of Planning and Environment
To:	PPO Engagement
Cc:	eplanning.exhibitions@planning.nsw.gov.au
Subject:	Webform submission from: Western Sydney Aerotropolis Draft Precinct Plans
Date:	Friday, 12 March 2021 3:45:56 PM
Attachments:	aerotropolis-submissioon-mmushalik.pdf

Submitted on Fri, 12/03/2021 - 15:42

Submitted by: Anonymous

Submitted values are:

Submission Type
I am making a personal submission

Name

First name
Matt

Last name
Mushalik

I would like my submission to remain confidential
No

Info

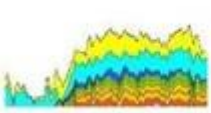
Email
[redacted]

Suburb/Town & Postcode
Epping NSW 2121

Submission file
aerotropolis-submissioon-mmushalik.pdf

Submission
attached as PDF

I agree to the above statement
Yes



Submission on Aerotropolis

The killer assumptions

By Matt Mushalik (MEng) 12 March 2021

List of Contents

This submission refers to:

https://www.planningportal.nsw.gov.au/WSAPP

(1) Air traffic data embellished to fit the case

Quote: *"The Western Sydney Aerotropolis Plan sets a vision for the Western Sydney Aerotropolis as Australia's next global gateway, built around the world-class Western Sydney International (Nancy-Bird Walton) Airport."*

Comment:

The air traffic assumed for the Sydney Basin is pure fantasy, the result of mindlessly applying an arbitrary future CAGR over decades to come without calculating limitations given by geopolitics, paying capacity of passengers, the environment, fuel supplies, power generation and the impacts from and on climate change.

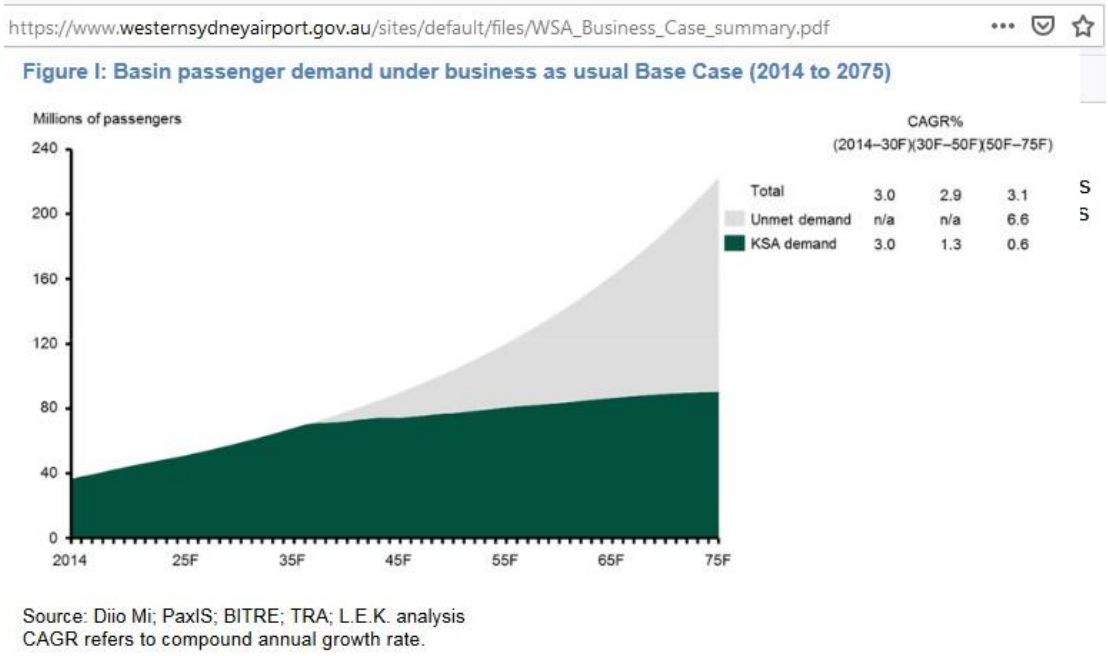


Fig 1: An assumption of exponential growth over decades is unrealistic

This graph is based on an "*update of the* [2012] *Joint Study*" (p 2)

- *"Passenger demand – total Sydney basin passenger demand is expected to increase from 36 million annual passengers (MAP) in 2013 to 59 MAP in 2030, 104 MAP in 2050 and 223 MAP in 2075.*
- *KSA capacity – without the construction of a WSA, KSA is projected to reach its long-term aircraft movement capacity by 2037*."

https://www.westernsydneyairport.gov.au/sites/default/files/WSA_Business_Case_summary.pdf In

Fig 1 suggests that this capacity (dark green area) is around 70 MAP in 2037. Actual KSA traffic in 2019 was 44.4 MPA, 63 % of that capacity. The future increase to 90 MPA is assumed to come from aircraft up-gauging.

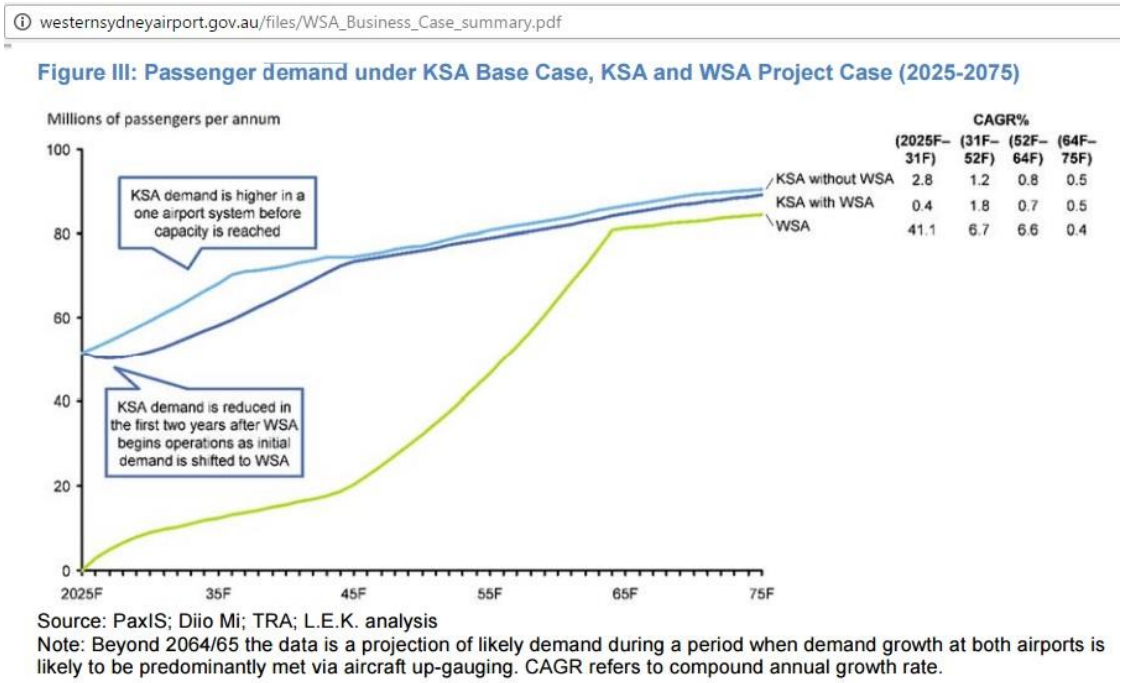


Fig 2: Passenger demand assumed in Business Case as of Oct 2016 (p 7)

In this graph, KSA traffic starts with 52 MPA in 2025, drops slightly when WSA opens and increases to 61 MPA by 2037 and 73.5 MPA in 2045 when growth slows. In that year, WSA would reach 20 MPA with growth accelerating to 32 MPA by 2050.

The Business Case does not give any details how the Joint Study update was arrived at.
https://www.westernsydneyairport.gov.au/sites/default/files/sydney_aviation_capacity.pdf

Actual passenger traffic:

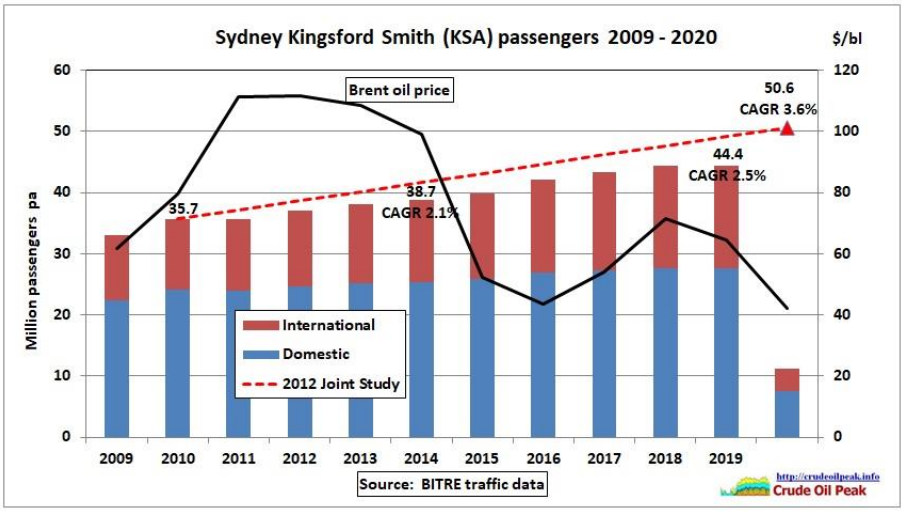


Fig 3: Actual KSA passenger traffic vs Brent oil price

Due to high oil prices >$100 (unconventional shale oil boom!), passenger traffic did not increase as assumed in the Joint Study (50.6 MPA in 2020). Even when oil prices went down again in 2015 the trend did not snap back. In 2019, before Covid, traffic did not grow at all compared to 2018. Data are from here: https://www.bitre.gov.au/publications/ongoing/airport_traffic_data

Fig 4: Weekly Brent oil prices

Please note that the maxima in high oil price episodes have been going down, suggesting that the global economy can less and less afford high oil prices.

Let's combine the Business Case and actual traffic:

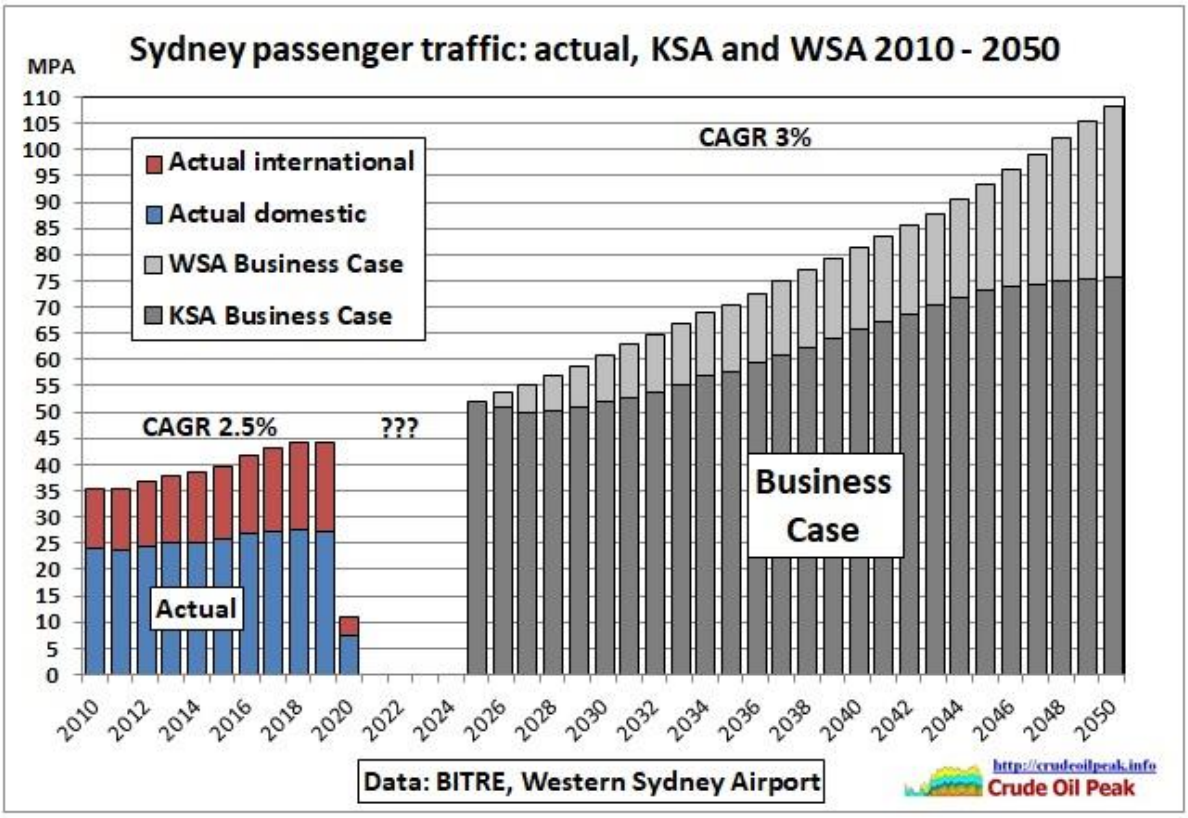


Fig 5: Actual KSA traffic and KSA, WSA assumed in Business Case

2050 is taken here as a time horizon because this is the time limit given by net zero emission targets.

Conclusion: The success or otherwise of the Aerotropolis is closely related to the destiny of the airport. Studies can assume any long term growth rate they like in order to arrive at a target air

traffic which is large enough to argue for a 2nd Sydney airport. A proper business case should have analysed:

- has globalisation already peaked?
- when is the next oil crisis?
- how will the airport and the aerotropolis be impacted by tensions in the South China Sea?
- when will the asset bubble burst?
- which sustainable aviation fuels become available when, in which quantities and cost?
- what is the impact of global warming on aviation? (storms, take-off speeds etc.)
- Which other factors may limit air-traffic?

As these questions hang in the air, the future of the Aerotropolis is uncertain

(2) Covid and future pandemics

The Corona virus has complicated things further. IATA has just come out with this update:

Effects of Novel Coronavirus (COVID-19) on Civil Aviation: Economic Impact Analysis
10 March 2021
Montréal, Canada

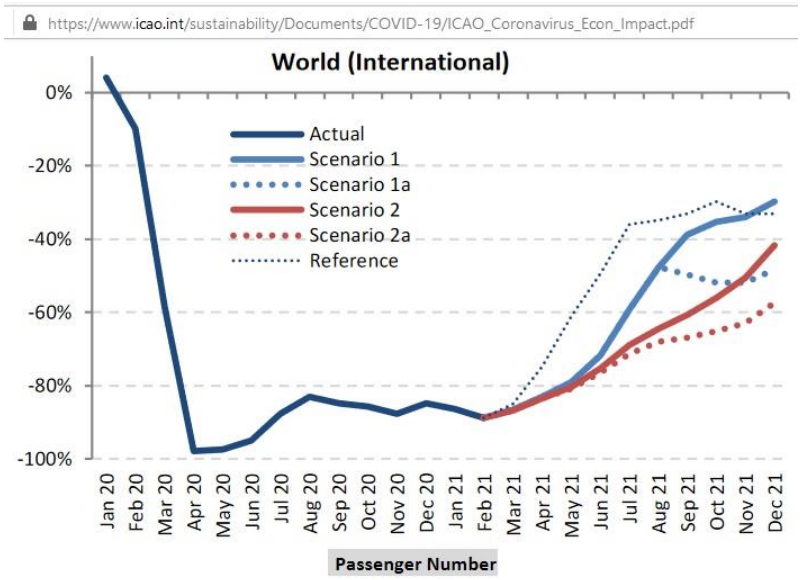


Fig 6: Passenger number recovery scenarios
https://www.icao.int/sustainability/Documents/COVID-19/ICAO_Coronavirus_Econ_Impact.pdf

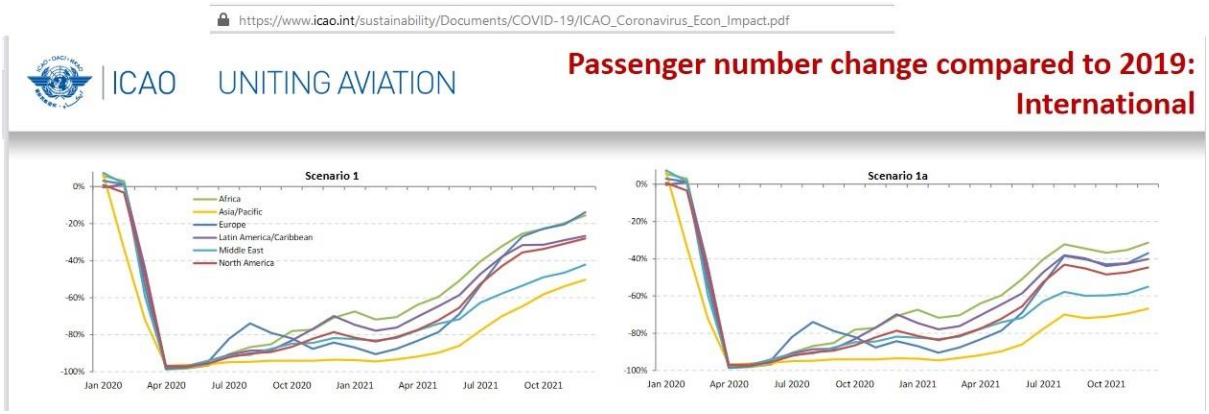


Fig 7: International passenger number scenarios by region

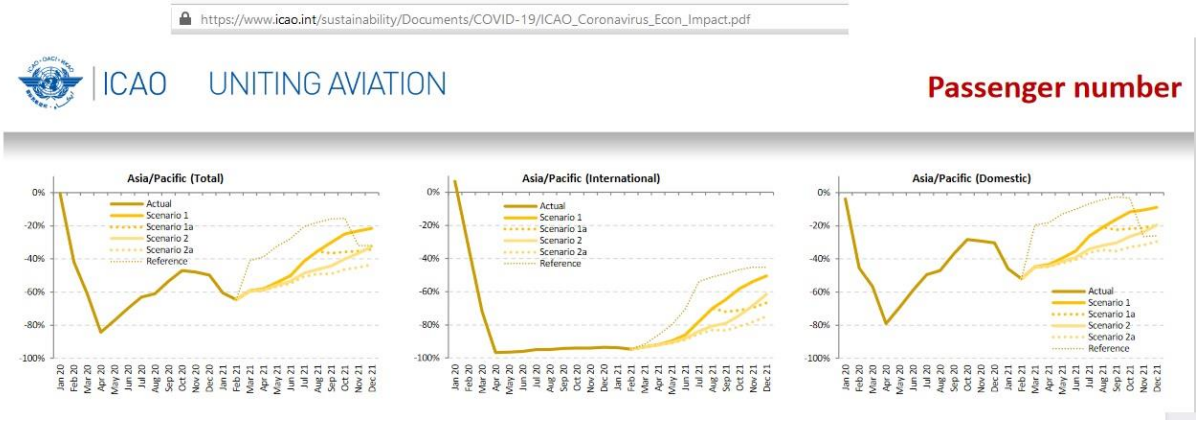


Fig 8: International passenger number scenarios in the Asia/Pacific

So it may take several years until air traffic is back to 2019. Whether it will ever grow again globally, is unclear.

Make no mistake: Australia was only successful fighting the virus because it's an island and it stopped/curbed international flights after some initial mistakes (like allowing a direct Wuhan flight to land in Sydney on 23 Jan 2020). Any resumption of international flights will require that vaccinations in all countries have been completed and documented in vaccination certificates.

Reopening Australia's border will be 'one of the last things to change', says chief medical officer
19 Jan 2021
https://www.theguardian.com/australia-news/2021/jan/19/reopening-australias-border-will-be-one-of-the-last-things-to-change-says-chief-medical-officer

A BBC documentary by Michael Mosley Corona Virus Special
https://www.sbs.com.au/ondemand/video/1742221379683/michael-mosley-coronavirus-special

quoted Dr. Peter Daszak https://www.ecohealthalliance.org/personnel/dr-peter-daszak
who argues that unless we change our business as usual, the next pandemic will come. The causes high population densities, fast land use changes, forest clearing with contact to wildlife

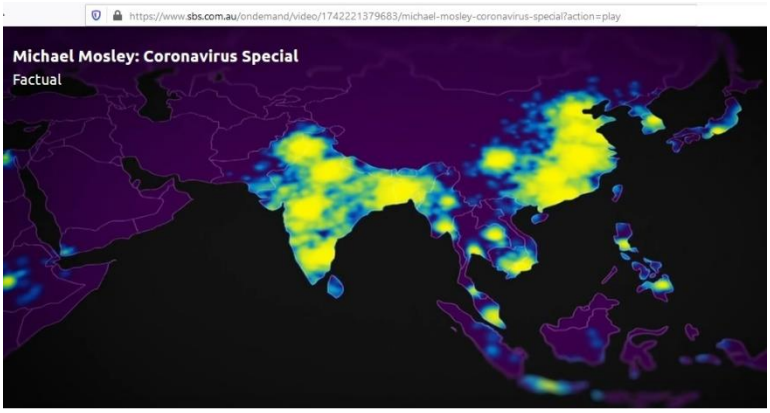
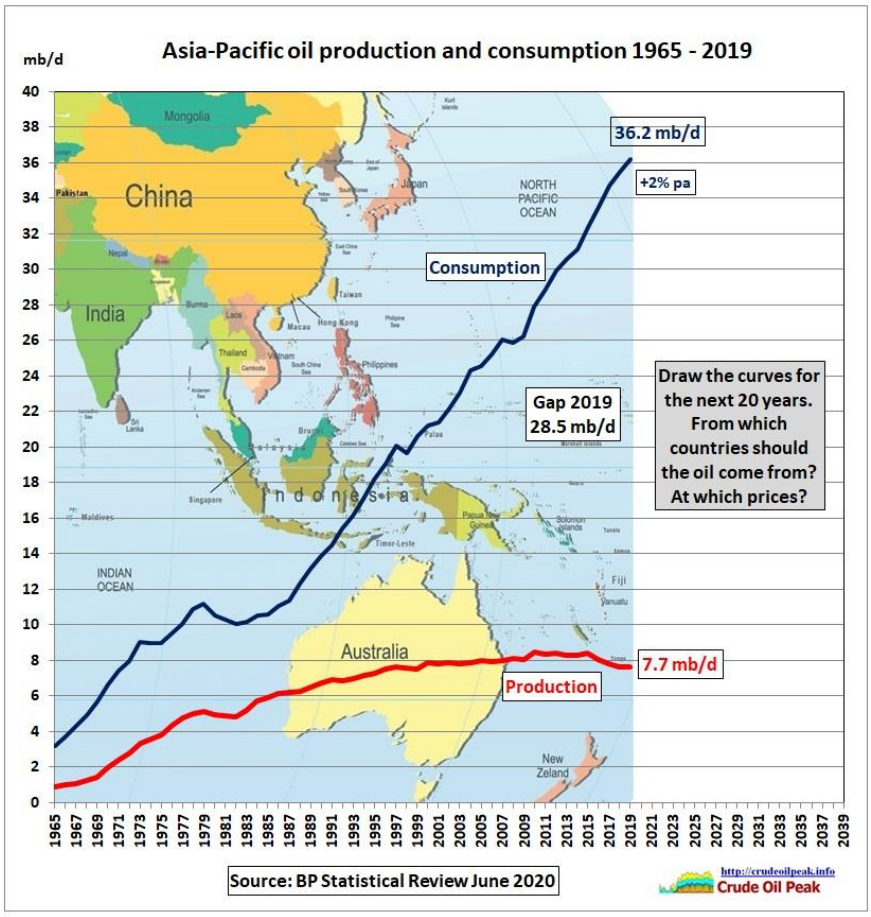


Fig 9: Pandemic hotspots for new Covid strains, viruses

And of course the Western Sydney Airport plus Aerotropolis is exactly business as usual.

(3) Peak oil

The most dangerous peak oil event is in China and in fact in all of Asia (2015):



10/9/2020 Peak oil in Asia Update June 2020 (part 4)
https://crudeoilpeak.info/peak-oil-in-asia-update-june-2020-part-4

17/8/2020 Peak oil in Asia Update June 2020 (part 3)
https://crudeoilpeak.info/peak-oil-in-asia-update-june-2020-part-3

15/7/2020 Peak oil in Asia Update June 2020 (part 2)
https://crudeoilpeak.info/peak-oil-in-asia-update-june-2020-part-2

30/6/2020 Peak oil in Asia Update June 2020 (part 1)
https://crudeoilpeak.info/peak-oil-in-asia-update-june-2020-part-1

Fig 10: Governments need to do their homework

The closing of Australian refineries is a symptom of peak oil and should ring all alarm bells.

15/2/2021 Exxon-Mobil's refinery closure in Australia: peak oil context

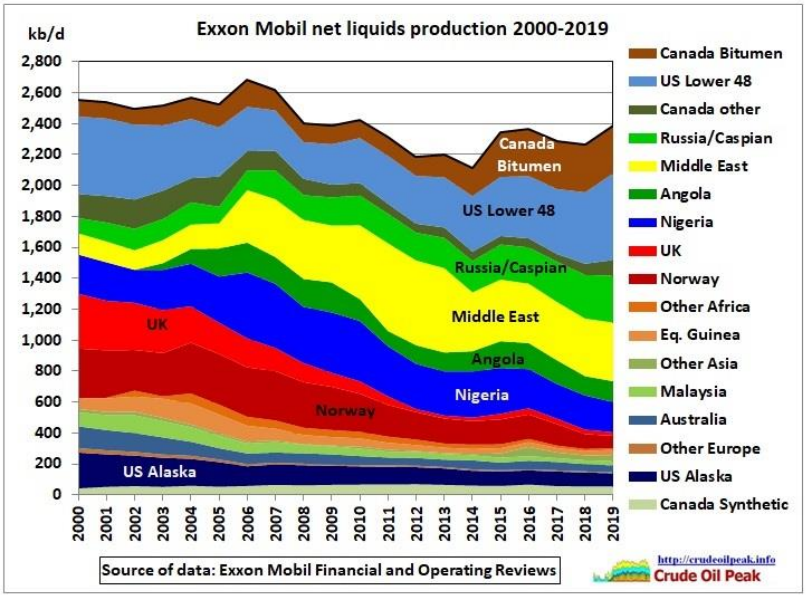


Fig 11: Exxon Mobil's net liquids production

https://crudeoilpeak.info/exxon-mobils-refinery-closure-in-australia-peak-oil-context

14/11/2020 Australia's BP Kwinana refinery closure: peak oil context

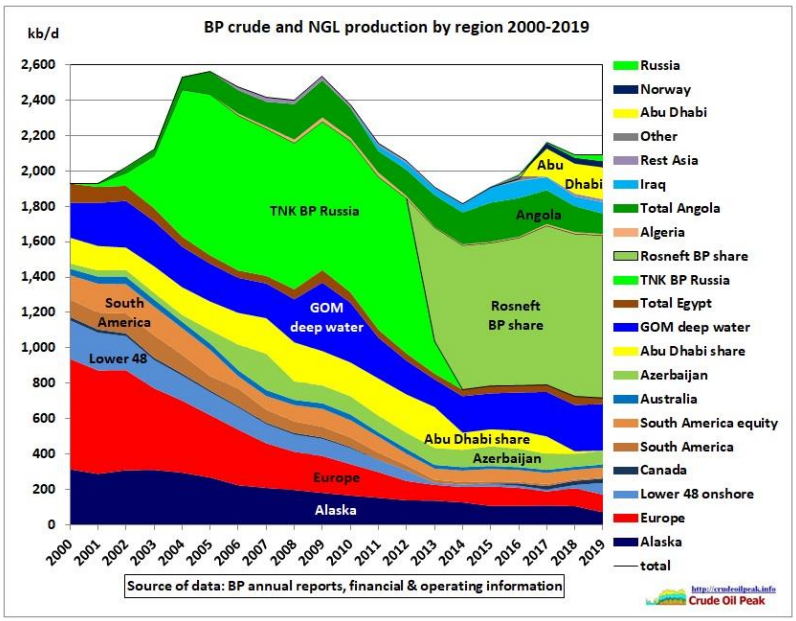


Fig 12: BP crude oil and NGL production

https://crudeoilpeak.info/australias-bp-kwinana-refinery-closure-peak-oil-context

It beggars belief that Governments make multi-billion dolar decisions on oil dependent infrastructure without having done any analysis on this burning topic.

The current crisis in the airline industry is similar to a peak oil scenario in which aviation fuel is scarce.

3 May 2020 How the first phase of peak oil brought Virgin Australia into minus after 2008

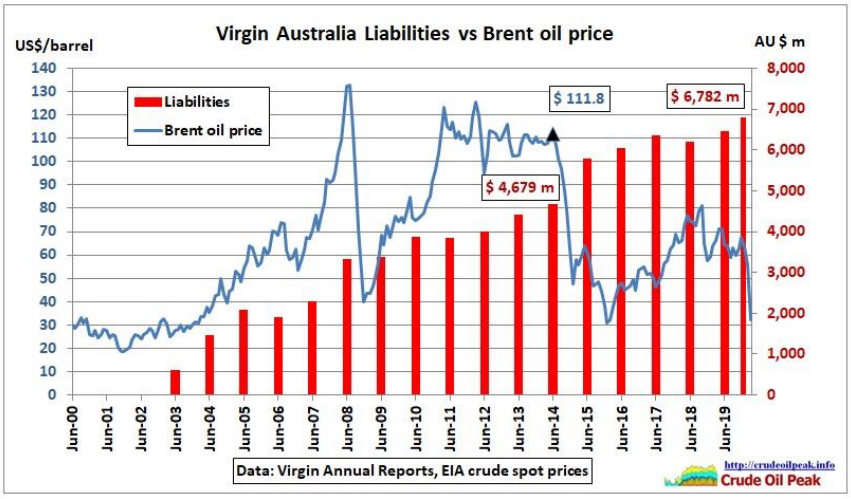


Fig 13: Virgin's liabilities skyrocketed after the 2008 oil price shock
http://crudeoilpeak.info/how-the-first-phase-of-peak-oil-brought-virgin-australia-into-minus-after-2008

This oil crisis left a big mountain of debt behind. We do not know which airlines will survive Covid.

The previous refinery closures made Australia highly dependent on fuel imports

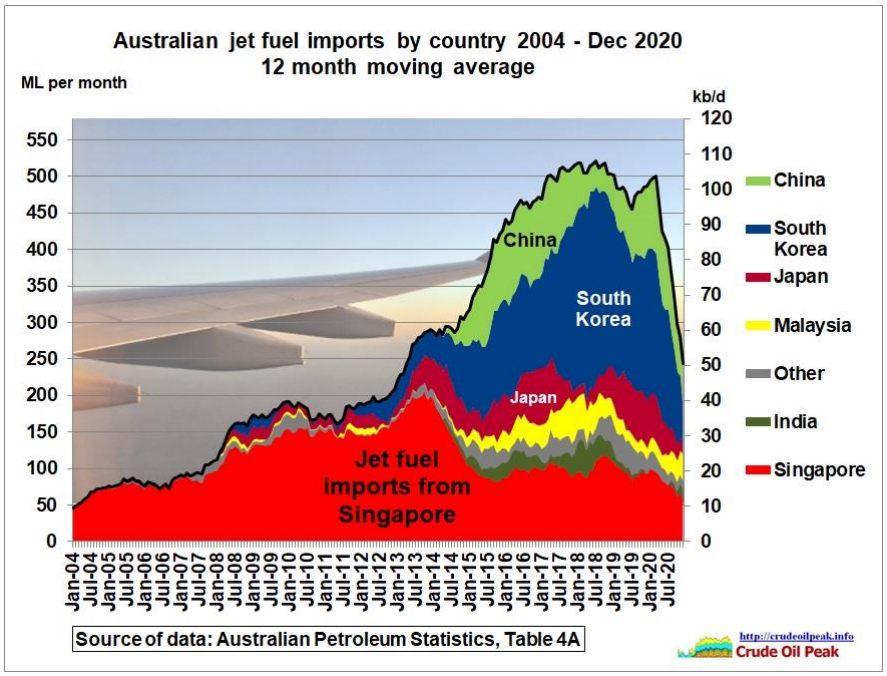


Fig 14: Australia's dependency on jet fuel imports, the drop caused by Covid

Note how vulnerable Australia has become as a result of jet fuel imports from China.

The construction of the airport and the Aerotropolis depends on diesel (growing imports):

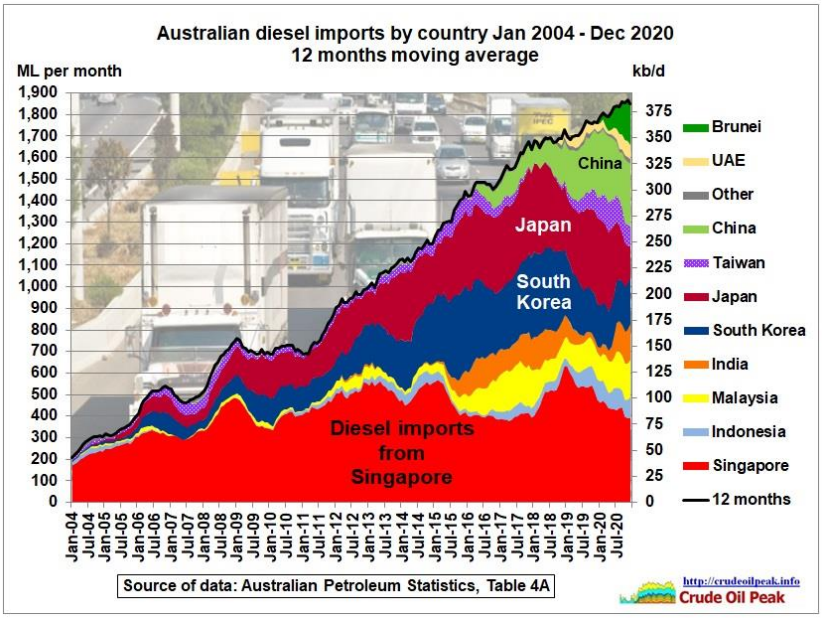


Fig 15: Diesel from Brunei comes from a brand new Chinese refinery, part of BRI

That's why Australian refineries are closing. And which iron ore was used for the steel of distillation towers and tank farms?

It is entirely possible that we saw peak liquids production in 2018, 2019.

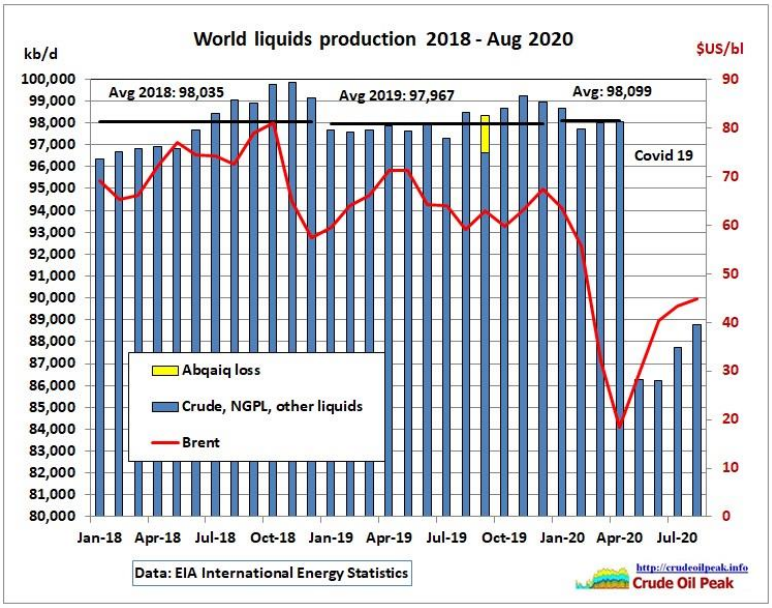


Fig 16: Lower oil demand from Covid may obscure the peak

The Abqaiq loss shown in the graph should remind everyone:

1/10/2019 The Attacks on Abqaiq and Peak Oil in Ghawar
http://crudeoilpeak.info/the-attacks-on-abqaiq-and-peak-oil-in-ghawar

There is a lot of talk about planes using hydrogen to drive fuel cells

Fig 17: Propeller plane driven by fuel cells
https://www.airbus.com/newsroom/press-releases/en/2020/09/airbus-reveals-new-zeroemission-concept-aircraft.html

Can flying go green? | The Economist
11 Feb 2021
https://www.youtube.com/watch?v=ldhilLgVML0

The ultimately limiting factor for hydrogen is the lower energy density on board the plane. Liquid hydrogen has only one quarter the energy of the same volume of jet fuel. No technology can change that. Therefore, synthetic jet fuels are being investigated

Jet fuel from thin air: Aviation's hope or hype?
1 Oct 2019
https://www.bbc.com/news/business-49725741

(4) Geopolitics

China eyes new Sydney airport as part of 'belt and road' plan
28 May 2017, by Lisa Murray

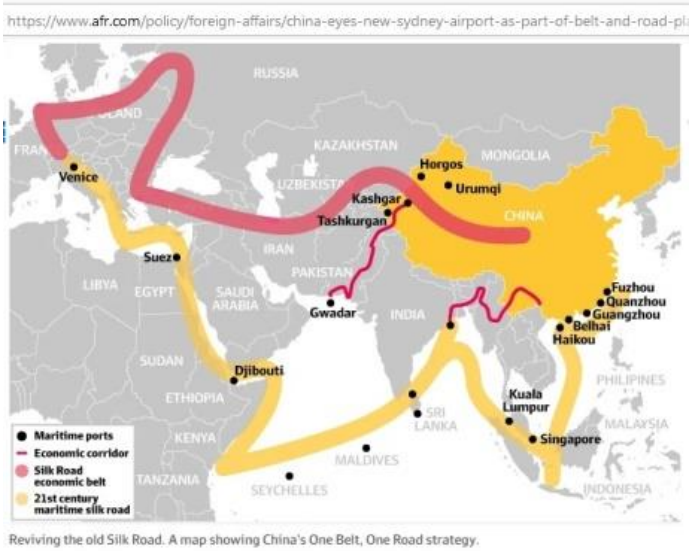


Fig 18: China's Belt and Road Initiative

China is eyeing Sydney's new airport as a potential project that could be linked to its trillion dollar "One Belt, One Road" infrastructure plan, according to a government-linked think tank.

"China is not just interested in infrastructure projects in Northern Australia being linked with Belt and Road," said Han Feng, from the National Institute of International Strategy at the state-run Chinese Academy of Social Sciences.
"Sydney's infrastructure plan requires a large amount of capital and they need to seek international cooperation on these projects. Subways, airports and roads; these infrastructure projects are China's strength. If the new Sydney airport is open to foreign investment, Chinese companies would be happy to get involved," said Mr Liu.
https://www.afr.com/policy/foreign-affairs/china-eyes-new-sydney-airport-as-part-of-belt-and-road-plan-20170526-gweb65

China could invade Taiwan in next six years, top US admiral warns
10 Mar 2021
Asia Pacific commander Philip Davidson says Beijing wants to take Washington's world leadership role by 2050 China could invade Taiwan within the next six years as Beijing accelerates its moves to supplant American military power in Asia, a top US commander has warned.

Democratic and self-ruled Taiwan lives under constant threat of invasion by China, whose leaders view the island as part of their territory and which they have vowed to one day take back.

"I worry that they're [China] accelerating their ambitions to supplant the United States and our leadership role in the rules-based international order... by 2050," said Washington's top military officer in Asia-Pacific, Admiral Philip Davidson, on Tuesday. "Though I'm not convinced that Beijing has depleted all the options in its toolkit short of a full-out invasion, my concern is that, with the increasing regularity of incursions into Taiwan's [air space], there is a higher risk of an accident or a miscalculation – one that could compel, or be used by Chinese leadership to justify, further military escalation," said Jessica Drun, a non-resident fellow at Project 2049, a thinktank focusing on security in the Asia region.
https://www.theguardian.com/world/2021/mar/10/china-could-invade-taiwan-in-next-six-years-top-us-admiral-warns

It is high time Australia becomes self-reliant.

(5) Climate change

The airport and the Aerotropolis are based on the untested assumption that our carbon based consumer society with mass tourism can continue for decades to come. The response of nature to our CO2 emissions will not allow this.

The Aerotropolis is located in one of the hottest areas in the Sydney basin, just 7 kms away from a large forest area to the west which one day will burn to the ground with huge smoke clouds making airtraffic impossible.

The EIS had this table and noted that "Whilst average daily temperatures are important, it is the extremes in heat or cold that can have the most impact on airport operations generally"

https://www.westernsydneyairport.gov.au/sites/default/files/WSA-EIS-Volume-1-Chapter-7-Airspace-architectu

Table 7–4 Temperature climatology at the airport site

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean daily maximum temperature (°C)	29.9	28.5	26.7	23.9	20.6	17.8	17.3	19.3	22.7	24.7	26.1	28.1
Highest temperature (°C)	45.5	42.6	40.0	34.6	27.9	25.2	25.4	28.8	34.8	37.2	41.9	42.5
Mean daily minimum temperature (°C)	16.9	17.1	15.1	11.3	7.6	5.4	4.2	4.6	7.7	10.2	13.4	15.2
Lowest temperature (°C)	8.2	8.5	6.4	-0.1	-1.1	-3.0	-4.5	-1.9	-0.5	2.2	5.3	6.6

Table 7–5 Temperature extremes at the airport site

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean number of days over 30 °C	13.4	9.6	4.8	0.8	Nil	Nil	Nil	Nil	1.7	5.1	6.8	10.2
Mean number of days over 35 °C	5.2	2.6	0.5	Nil	Nil	Nil	Nil	Nil	Nil	0.8	1.8	2.8
Mean number of days below 0 °C	Nil	Nil	Nil	0.1	0.3	2.0	3.3	2.1	0.2	Nil	Nil	Nil

Fig 19: Temperature extremes at the airport site

https://www.westernsydneyairport.gov.au/sites/default/files/WSA-EIS-Volume-1-Chapter-7-Airspace-architecture.pdf

It is interesting to note that neither the above document nor a 2015 report "Western Sydney Airport Climatological Review" https://www.westernsydneyairport.gov.au/sites/default/files/bureau-of-meteorology-western-sydney-airport-climatological-review.pdf mention global warming. And because of this failure, future temperatures have not been calculated.

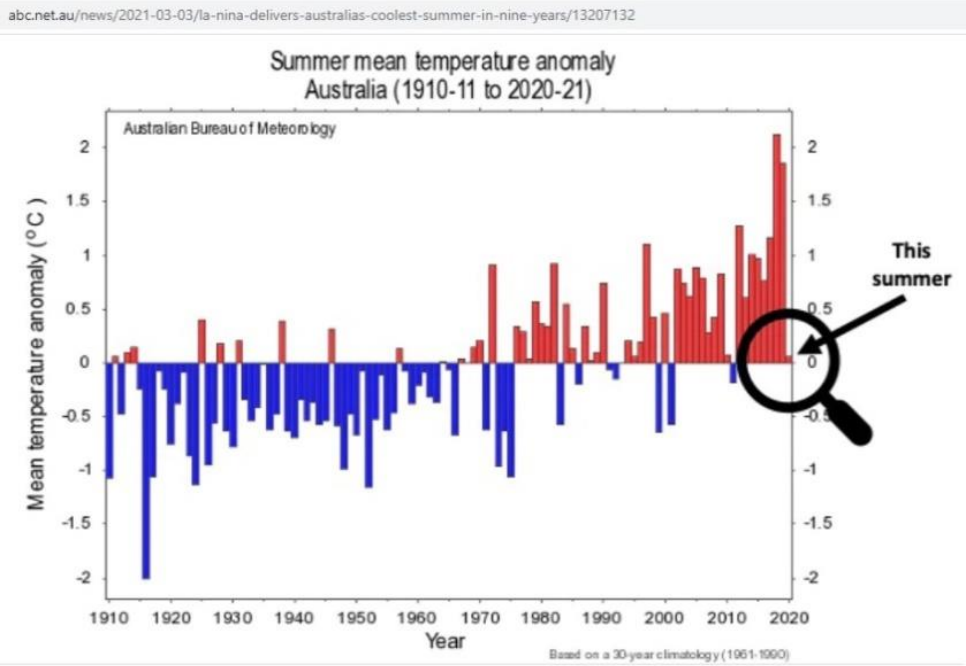


Fig 20: Australian temperature anomalies trend

The drop in the summer 2020/21 is explained by El Nina.

The Greater Sydney Commission, a champion of perpetual growth (8 million population target for Sydney) is very well aware of high temperatures in Sydney's West

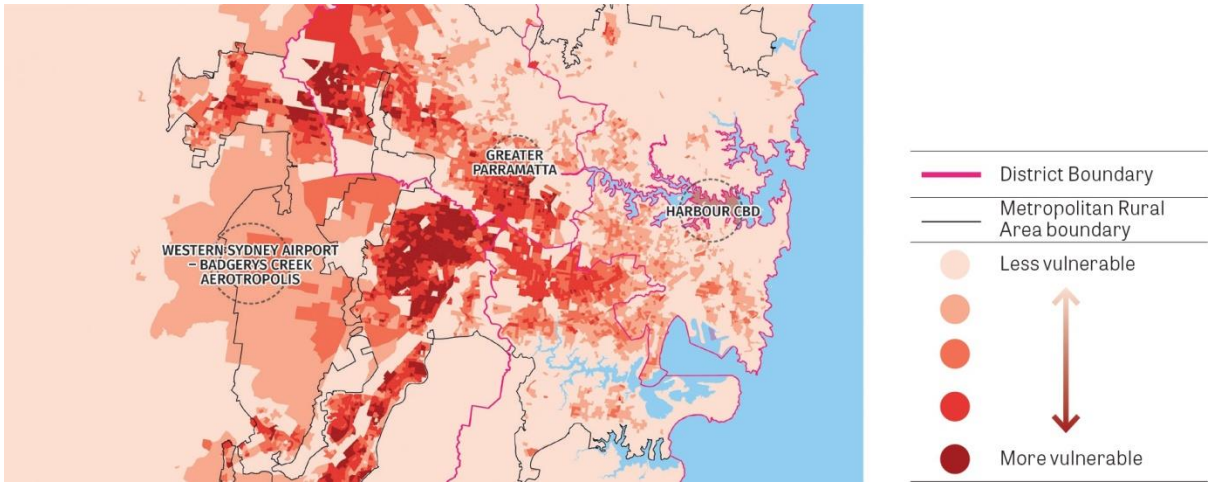


Fig 21: Vulnerability to heatwaves
https://www.greater.sydney/western-city-district-plan/sustainability/resilient-city/adapting-impacts-of-urban-and-natural

The shading in the airport area is light at present because it is a rural area. But this would change to the darker areas around Liverpool and Penrith once the Aerotropolis is built. Trees for shading and natural evaporative cooling need rainfall and/or watering facilities. However, we already experienced that Sydney's dam levels can drop to half (threshold for water restrictions) when there is below average rain fall for 2 years.

The climatology in the Aerotropolis area means that airconditioning requirements will be very high.

(6) Power supplies

There is the question whether sustainable i.e. CO2 free power supplies can be made available in time to drive the Aerotropolis.

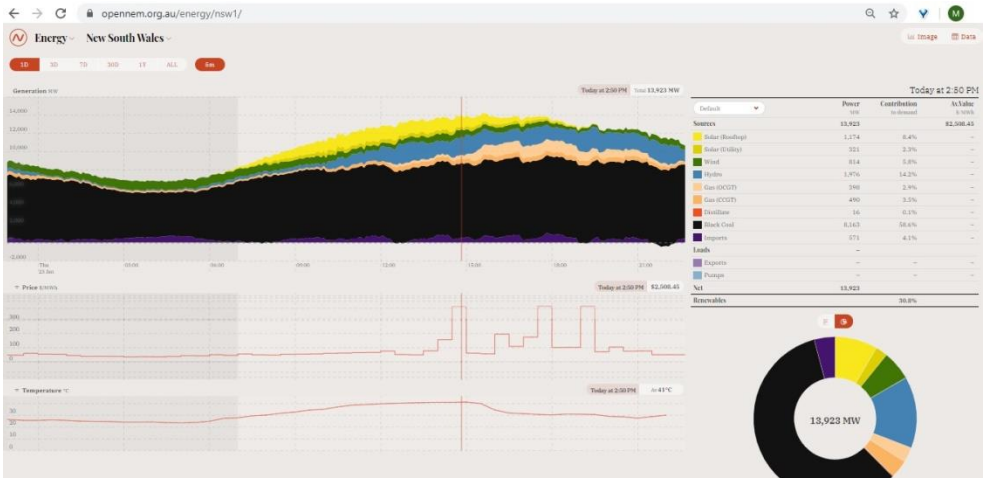


Fig 22: NSW demand was almost 14 GW on 23 Jan 2020 (the day a fire fighting plane crashed and a direct flight from Wuhan was allowed to land in Sydney)

The job at hand is to replace coal fired power plants, not to add new power consumers like the WSA and the Aerotropolis.

Liddell (1,100 MW 24/7) will close in 2022.

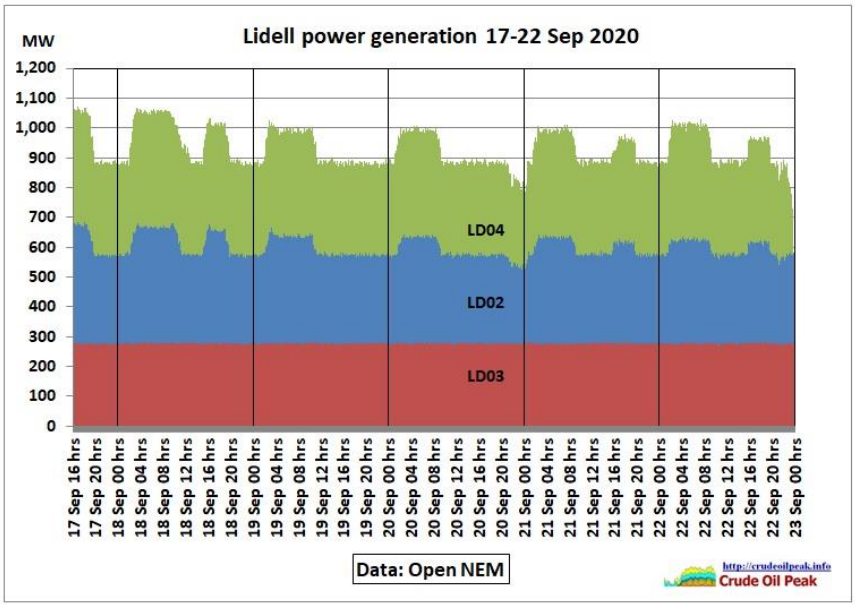


Fig 23: Only 3 units are working in Liddell

It is not clear whether this plan will work:

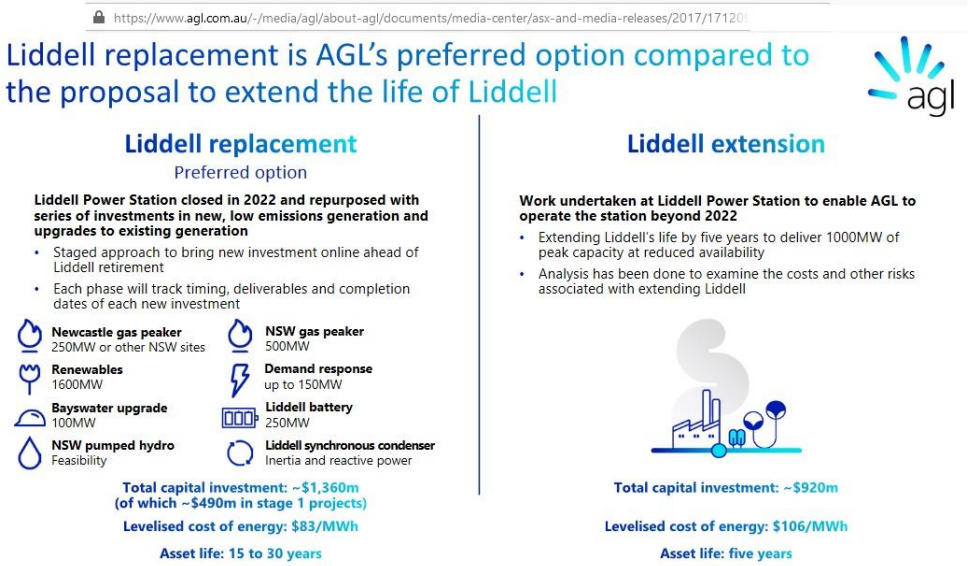


Fig 24: AGL plan to replace Liddell

https://www.agl.com.au/-/media/agl/about-agl/documents/media-center/asx-and-media-releases/2017/171209nswgenerationplandecember2017.pdf?la=en&hash=BB2DAB602AE1D1AECD85D4F2881EA665

The gas peakers won't run 24 hrs. And where would be the gas for that? Gas production on the East Coast is peaking while huge volumes of LNG are wasted in exports.

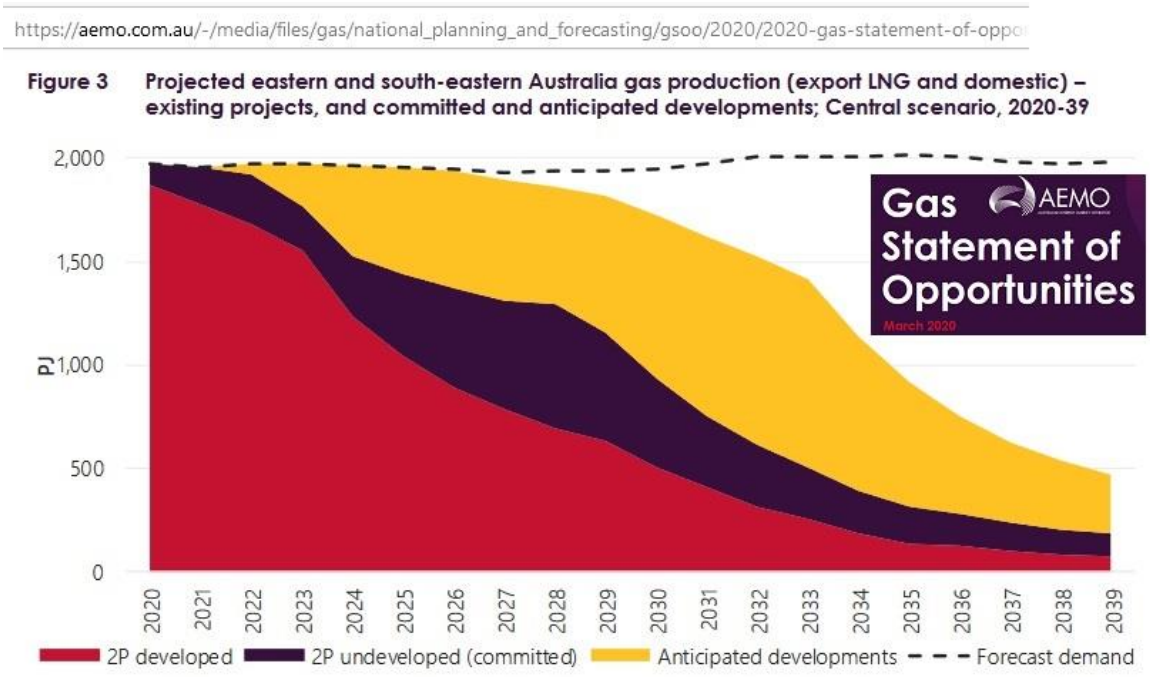


Fig 25: AEMO's projection of gas production

Because of past energy policy failures (going back to the Howard/McFarlane and Rudd/Ferguson years) it is now necessary to build an LNG IMPORT terminal in Port Kembla

NSW set to import LNG by end 2022
10 Dec 2020
https://www.afr.com/companies/energy/nsw-set-to-import-lng-by-end-2022-20201210-p56m7r

Batteries usually store energy for only a couple of hrs (used during the daily demand peak). They cannot deliver base load for which storage in pumped hydro is needed .

Demand response means load shedding.

14 Feb 2017 NSW's privatized giveaway coal plant causes load shedding in extreme weather
http://crudeoilpeak.info/nsws-privatized-giveaway-coal-plant-causes-load-shedding-in-extreme-weather

11/12/2020
NSW power supply problems November 2020 (part 2)
https://crudeoilpeak.info/nsw-power-supply-problems-november-2020-part-2

26/11/2020
NSW power supply problems November 2020 (part 1)
https://crudeoilpeak.info/nsw-power-supply-problems-november-2020

Renewables need storage to work 24/7. Here is a quick calculation using wind:

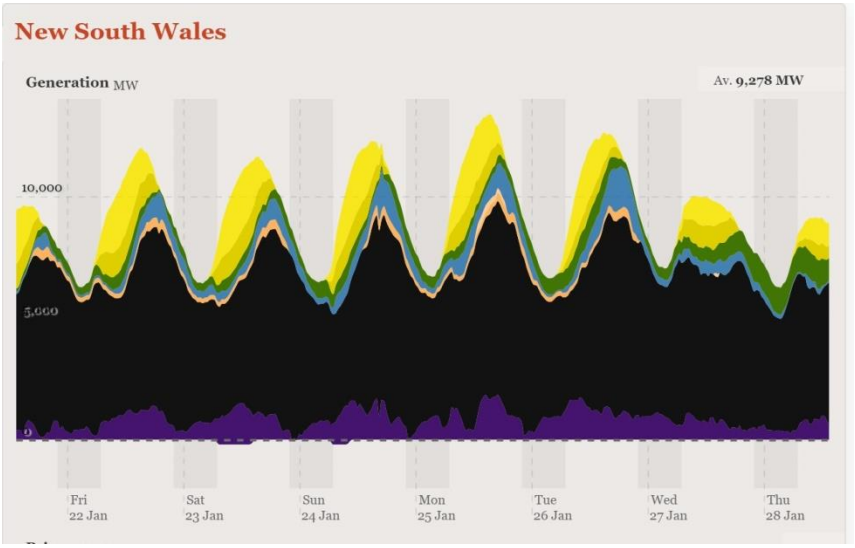


Fig 26: Poor wind in the 1st few days of this week

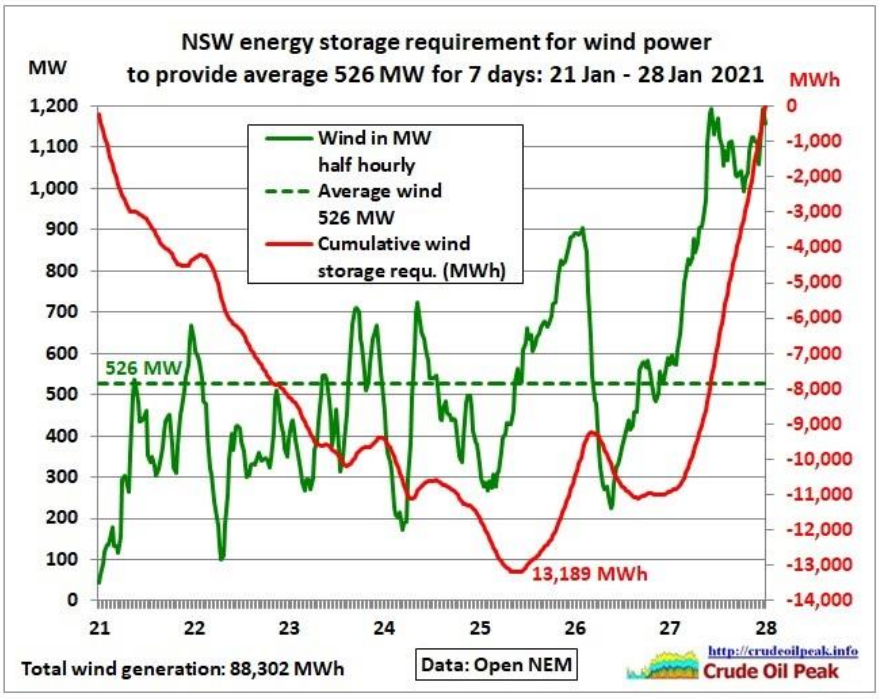


Fig 27: Half hourly wind generation for Fig 26

This generation came from 1,867 MW of wind farms. 526 MW is a capacity factor of 28%
https://anero.id/energy/wind-energy/2021/january

This means 1,100 MW x 1,867 MW / 526 MW = 3,900 MW of NEW wind farm capacity would have to be built along with storage capacity of 13,189 MWh x 1,100 MW / 526 MW = 27,581 MWh. Plus associated transmission lines, substations, switchyards etc. That is of course only valid for that particular week only and a lot of modelling over 12 months and several years would have to be done.

Snowy 2.0 will provide reliable, dispatchable energy generation (2,000MW) and large-scale energy storage (175 hours or 350,000 MWh) and builds on Snowy Hydro's existing capabilities.
https://www.snowyhydro.com.au/snowy-20/documents/feasibility-study-economics-and-revenue-stream/

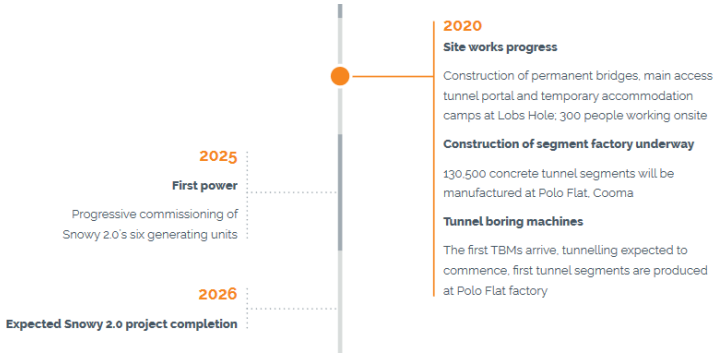


Fig 28: Timeline for Snowy 2
https://www.snowyhydro.com.au/wp-content/uploads/2020/08/Snowy-2.0-booklet_August-2020.pdf

So this may come too late for Liddell.

Snowy 2.0 project update February 2021

Fig 29: TBM put in place
https://www.youtube.com/watch?v=BIe8G_dqjiE

Capacity factors for solar farms would be lower than for wind, between 24 % and 29% in August.
https://reneweconomy.com.au/graph-of-the-day-australias-best-performing-solar-farms-in-august-36004/

And now the closure of Yallourn in Victoria has been announced.

EnergyAustralia to close Yallourn early
https://www.afr.com/companies/energy/energyaustralia-to-close-yallourn-early-20210310-p579by

Energy Australia announced that as part of the closure plans, a new big battery facility would be built at Jeeralang in the Latrobe Valley, with 350 MW of capacity and up to four hours of storage. The battery would be up and running by 2026, ahead of the closure of the Yallourn power station.
https://reneweconomy.com.au/energyaustralia-says-yallourn-coal-generator-to-close-early-in-2028/

350 MW x 4 hrs = 1,400 MWh, that's just 4% of daily generation (1,470 MW x 24 hrs = 35,280 MWh).

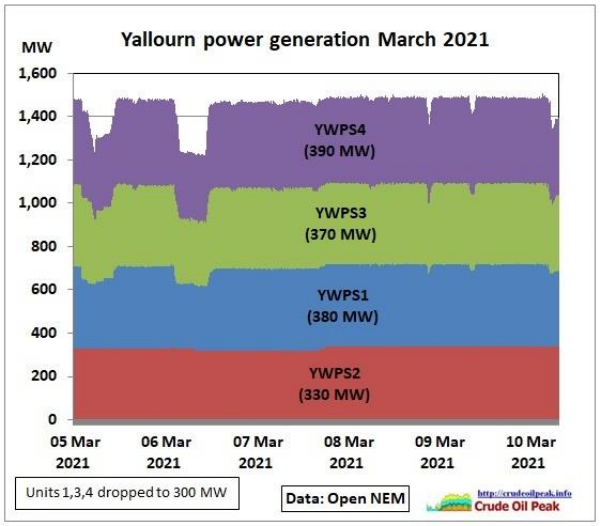


Fig 30: Yallourn power generation

Energy Minister Lily D'Ambrosio said there would be a further 5,000 megawatts of new power generation in the next seven years.
"Every Victorian can be absolutely confident that we will have more than sufficient power to meet all of our needs."
https://www.abc.net.au/news/2021-03-10/yallourn-power-station-early-closure/13233274

That may not include exports to NSW which is utterly dependent on imports from Qld and VIC

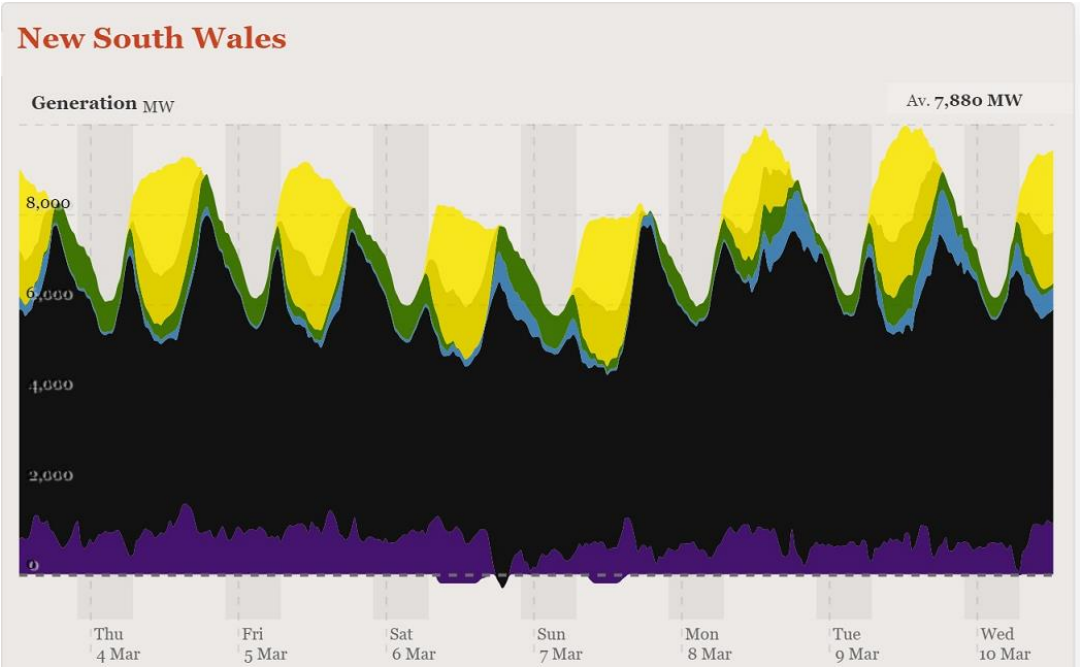


Fig 31: NSW power imports (dark violet area) from Queensland and Victoria

Pumped hydro storage for Victoria could come from Tasmania but many projects are needed including an additional 2nd Bass interconnector. The clock is ticking

The initial study report found Marinus Link was technically feasible as either a 600 MW high voltage direct current cable or a 1200 MW interconnector delivered as two 600 MW stages.

According to the initial findings, the capital cost of the interconnection options would range from approximately $1.3-1.7 billion for the 600 MW option or $1.9-3.1 billion for the 1200 MW capacity option.
https://arena.gov.au/blog/marinus-feasible/

We have a similar situation as in the oil industry where lower oil prices due to a weak economy as a result of earlier higher oil prices and now the Corona virus caused a drop of investments and irreversible refinery closures without that alternative fuels are in place.

Conclusion: Reliable power supplies cannot be taken for granted. The Greater Sydney Commissions has no skilled staff with the mindset to check on this. They have been instructed to wave through development applications (personal experience from attending hearings). In all likelihood, current NSW project plans (100s of apartment towers, metros to connect them, new skyscrapers in the CBD, Barangaroo and Parramatta, the Western Sydney Airport and the Aerotropolis) have overbooked future, physically available power supplies. Political statements cannot be trusted.

(7) Pollution

Sydney's West is not known for good air quality even before an airport is built:

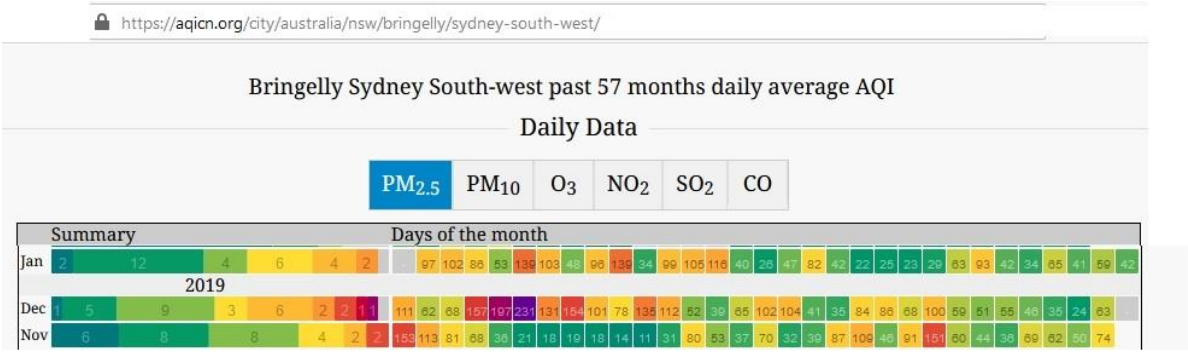


Fig 32: Bringelly PM 2.5 pollution
https://aqicn.org/city/australia/nsw/bringelly/sydney-south-west/

Check your own window sills and the location of your suburb. Large parts of Sydney (not just the West) will be carpeted with yet more particulate matter of all shapes and sizes.

https://www.westernsydneyairport.gov.au/sites/default/files/WSA-EIS-Volume-3-Long-Term-Development.pdf

Table 36–1 Predicted aircraft movements

Year	Aircraft movements per day			
		Freight	Passenger	Total
2030	10 million annual passengers	28	170	198
2050		74	480	554
2063	82 million annual passengers in 2063	104	1006	1110

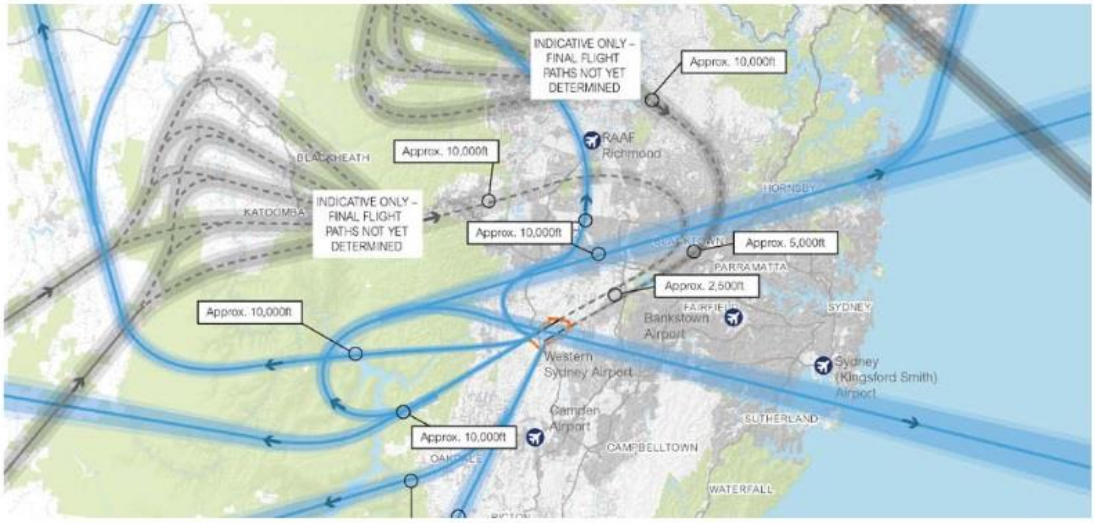


Fig 33: WSA flight corridors. Not shown: KSA flight paths

The circular pollution problem in the South West is known since the publication of the MacArthur Airquality Report in 1991 (https://catalogue.nla.gov.au/Record/2634692)

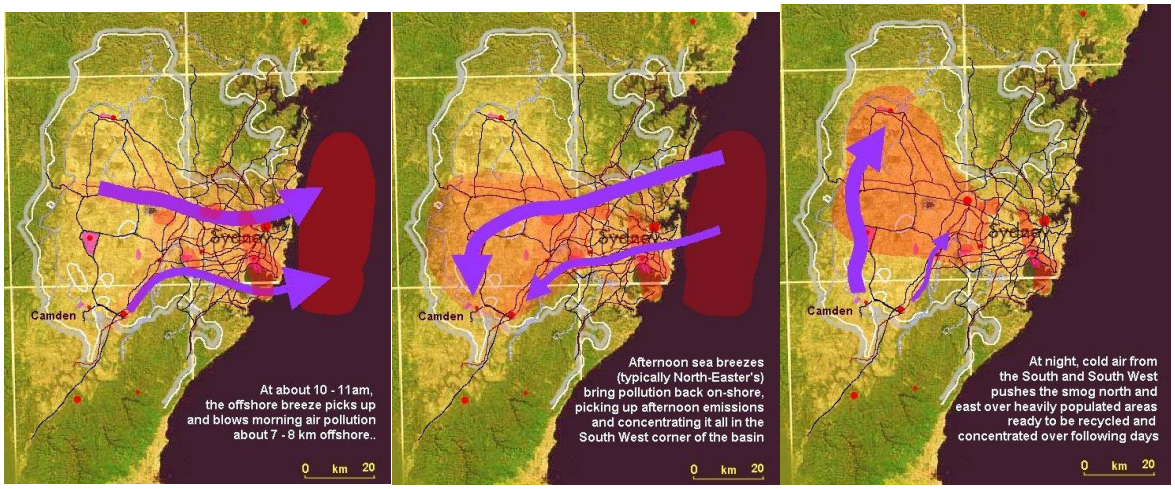


Fig 34: How pollution accumulates in daily cycles
http://www.condellpark.com/bear/smogbasin.htm

Unbelievable, that an airport and the Aerotropolis are built at that site! This will not be a nice environment to work in, despite the glossy brochures.

(8) Rail link

The original plan for the Badgerys Creek airport was to extend the Leppington rail link.

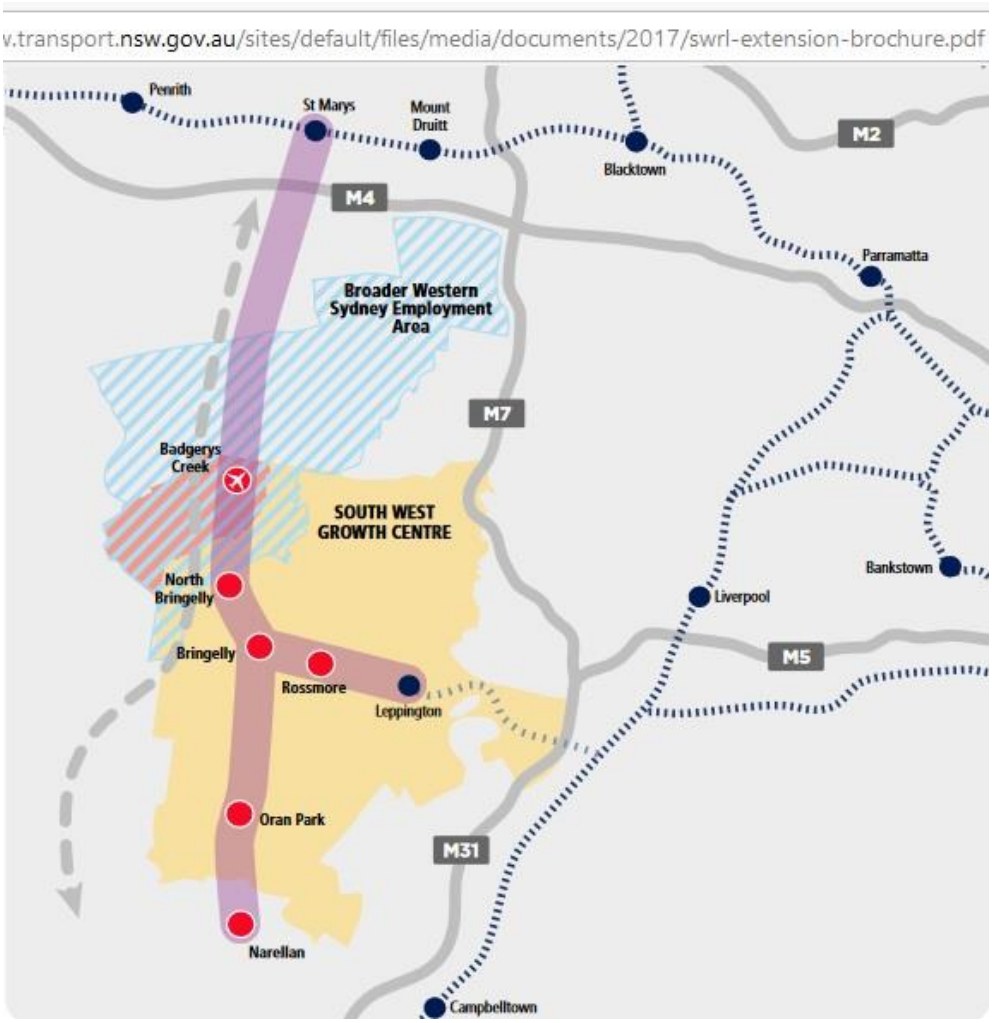


Fig 35: South West Rail Link Extension planned by Transport NSW
https://www.transport.nsw.gov.au/corridors/nsrl-swrl
https://www.transport.nsw.gov.au/sites/default/files/media/documents/2017/swrl-extension-brochure.pdf

North South Rail Line and South West Rail Link Extension

Reviewed 30 Jun 2020

The North South Rail Line is a passenger rail line connecting St Marys with Macarthur. The line will run from the Main West Line (T1 Western Line) to the Main South Line (T8 Airport and South Line). This rail line will connect to the new Western Sydney Nancy Bird Walton Airport, Aerotropolis and surrounding business areas.

The South West Rail Link Extension will extend the existing passenger rail line from Leppington Station to the Aerotropolis.

https://www.transport.nsw.gov.au/corridors/nsrl-swrl

This was the proper plan. Not only much cheaper than the $ 11bn metro from St Marys to the WSA but very flexible and MULTIPURPOSE by allowing for future connections to Richmond and Hornsby (freight train bypass). We see here the disastrous decision to have introduced the incompatible North West metro with its low load bridges and small diameter tunnels. Direct rail freight from Botany Bay has also been forgotten.

In its blind preference for driverless metros and an entrenched hate for rail unions the NSW government has basically abandoned any future planning for Sydney Trains.

These metros are actually not metros which should stop every km or so, serving walkable catchments.

Apart from the 3 stations at the airport there are only 2 new stations:
Orchard Hills and Luddenham.

We have following approximate distances:

St Marys - Orchard Hills 4.5 kms
Orchard Hills - Luddenham 5.7 kms
Luddenham Road - Airport Business Park 5.2 kms

Orchard Hills catchment very limited towards the east 1 km only because of flooding in South Creek . See chapter 14
https://www.sydneymetrowsa.com/static/d784d95ad08dde790a2d8a6467a03674/eis-chapter-14.pdf

Luddenham Road station has a very limited catchment area in the Northern Gateway precinct. See page 26 in:
Western Sydney Aerotropolis Plan
https://shared-drupal-s3fs.s3-ap-southeast-2.amazonaws.com/master-test/fapub_pdf/00-Western+Sydney+Aerotropolis/000-Final+Planning+Package/Final+Documents/Western+Sydney+Aerotropolis+Plan+2020+(High+Res).pdf

This " metro" does not even serve the whole area of the Aerotropolis. Light rail would be needed for that purpose but the track record of the NSW government is terrible.

Cost far outweighs benefit: Sydney's $11b airport rail link slammed
12 Mar 2021
https://www.smh.com.au/national/nsw/cost-far-outweighs-benefit-sydney-s-11b-airport-rail-link-slammed-20210311-p579yh.html

On 18 February 2021 Infrastructure Australia concluded its independent evaluation of the Sydney Metro Western Sydney Airport project and determined it will not include the project on the Infrastructure Australia Priority List at this time.
https://www.infrastructureaustralia.gov.au/projects/sydney-metro-western-sydney-airport

Conclusion:

Essential research on the above mentioned issues has not been done to a level required to make multi million dollar decisions. Lack of research is replaced by wishful thinking. In some cases research was done but ignored. This will not ensure the sustainability of the Aerotropolis.

Recommendation:

The project team must redesign the Aerotropolis under the assumption that globalisation will go backwards and that the airport will commercially fail. This should include a re-purposing of the area into e.g. an industrial area/research centre for renewable technologies and energies. The original rail plan, not the metro, should be persued. This will impact the whole Aerotropolis planning. The location disadvantage in the South West cannot be overcome. The power supply problem must be solved urgently.

Prepared by

Matt Mushalik (MEng) 12 Mar 2021