

SUBMISSION TO THE PRODUCTIVITY COMMISSION PUBLIC INFRASTRUCTURE INQUIRY

FROM GREG CAMERON, AUSTRALIAN CAPITAL TERRITORY, 13 DECEMBER 2013

"A PRIVATELY FINANCED FREIGHT RAIL BYPASS OF SYDNEY"

Summary

A privately financed freight rail bypass of outer western Sydney can be built and in use by 2028.

The line leaves the Southern Sydney Freight Line at Glenfield, in south-west Sydney, and extends to Badgery's Creek, Eastern Creek and Hexham, 15km west of Newcastle, where it connects with the Main North Line. A spur line links Hexham with the Port of Newcastle.

Funding is generated by railing containers and interstate freight to an intermodal terminal at Eastern Creek. All containers for the Sydney market are railed between a container terminal at the Port of Newcastle and the intermodal terminal. The proposition is that railing containers and interstate freight will provide more benefits for NSW than trucking.

The funding solution is to set a price on container movements that covers all capital and operating costs for the freight rail bypass, container terminal and intermodal terminal. The market already exists and is currently serviced by trucking individual containers between Port Botany container terminal and their final destinations.

Over the next 40 years, around three-quarters of all container movements at Port Botany will occur by truck. By relocating container terminal operations to Newcastle, this revenue stream can be applied to rail. Consequently, the financing strategy is underpinned by the demand for containers.

The NSW government's freight plan for containers is a three-fold increase in annual truck movements through Port Botany, from 850,000 trucks in 2012 to 2.6 million trucks by 2030.

NSW government policy in relation to a freight rail bypass of Sydney is contained in the "NSW Freight and Ports Strategy, November 2013" (NSWFPS):

"... long term infrastructure projects such as the Outer Sydney Orbital [defined as "transport corridor in the western part of the Sydney Basin to provide future transport capacity"] and Western Sydney Freight Corridor are unlikely to commence construction within the next 10 to 15 years. However, work is needed to plan and implement corridor preservation requirements to expand network capacity." (page 209)

"Identifying a new Outer Sydney Orbital corridor and protecting it from incompatible development is an increasingly urgent priority, particularly as the corridor is of key strategic significance to both the road and the rail task." (page 102)

Intermodal Terminal Proposals

Sydney is currently served by three small intermodal terminals – Enfield, Minto and Yennora – with combined capacity of 0.6 million TEU (SIMTA EIS, June 2013, G-1, table 2.2) (TEU stands for "twenty-foot equivalent units" and is the international unit of measure used for standardising container throughput numbers.)

There are two proposals for intermodal terminals at Moorebank in western Sydney. Moorebank Intermodal Company (MIC) proposes a terminal with capacity for 1.2 million TEU import/export and 0.5 million TEU interstate transfer. MIC is owned by the Australian government. SIMTA (Sydney Intermodal Terminal Alliance), a private company, proposes a 1 million TEU terminal.

According to the NSW government, "Once complete, these two IMTs are expected to result in up to two million TEU of intermodal terminal capacity." (NSWFPS, page 122)

MIC has been advised by the NSW government that "the freight rail line between Port Botany and Moorebank, even with augmentation, can only support an intermodal terminal with a capacity of around 1.2 million TEU per year in import/export containers". (MIC, private communication, 26 November 2013)

Assuming that the NSW government includes interstate transfer capacity in its 2 million TEU expectation – understandable, given the recent heavy investment by the Australian government in the Southern Sydney Freight Line and Northern Sydney Freight Corridor stage 1 – there is rail capacity for only one of the current proposals. And, with container movements through Port Botany expected to reach 3.2 million TEU around 2020, a 1.2 million TEU import/export intermodal terminal at Moorebank should be full as soon as it opens.

Container movements through Port Botany were 2 million TEU in 2012. Movements are expected to reach 7 million TEU by 2030 and 13 million TEU by 2040/2050. (Sydney Ports/NSWFPS page 31)

The NSW government acknowledges the need to build additional intermodal terminal capacity: "To cater for forecast growth in the container market, further intermodal capacity will be needed in Sydney. In the longer term a key strategic location for an intermodal terminal could be in the Eastern Creek area. A future intermodal terminal in Western Sydney will need to be connected to the Metropolitan Freight Network. The necessary lands should be identified and protected in planning instruments to cater for future growth in the freight task." (NSWFPS, page 101)

Modal Split

The modal split for Port Botany container movements in 2012 was 1.7 million TEU truck and 0.3 million TEU rail. (Sydney Ports) In 2030, the modal split will be 5.2 million TEU truck and 1.8 million TEU rail. (Assumes total intermodal terminal import/export capacity of 1.8 million TEU.)

MIC says 80% of containers railed to its Moorebank terminal will be trucked to the final destination. For the intermodal terminals at Enfield, Minto and Yennora, all containers are trucked to the final destination. Of the 1.8 million TEU containers moved by rail to an intermodal terminal, 93% will be trucked to and from the final destination.

On average, a Port Botany container truck carries 2 TEU. In 2012, Port Botany container terminal generated 0.85 million truck movements. (1.7m / 2) In 2030, Port Botany container terminal will generate 2.6 million truck movements. (5.2m / 2) On average, a container-carrying truck serving MIC's proposed facility will carry 1.7 TEU. (MIC, op cit)

Environment and Noise

The NSW government released its "NSW Transport Masterplan" in December 2012.

In relation to environmental and noise impacts of freight, the report said: "If growth on freight networks is not managed and future networks are not well planned, increases in freight volumes will adversely impact the natural and built environment, particularly in the context of increased emissions and noise pollution. This will reinforce negative community views and perceptions about freight, potentially driving a less efficient outcome for all." (para 7.5.2)

In contrast, the NSW government's freight plan for containers is to increase truck movements through Port Botany from 0.85 million in 2012 to 2.6 million in 2030.

Relocating Port Botany container terminal operations to Newcastle allows for removal of all container-trucks from Sydney's roads. Container trucks would be replaced by lighter trucks. Hazardous emissions, noise, road damage and traffic congestion, would be measurably less. Productivity would rise and costs lowered. (Lloyds List Australia, 24 October 2013, page 3)

Intermodal terminals at Enfield, Yennora and Minto can be closed and plans for intermodal terminals at Moorebank would be terminated.

Rail can be used for moving 1.8 million TEU between Port Botany and Eastern Creek, via Glenfield, until the freight rail bypass is completed to a container terminal at Newcastle. There would be no need to build the Western Freight Line, between Chullora and Eastern Creek.

Eastern Creek Intermodal Terminal

Railing containers between Port Botany and an intermodal terminal at Moorebank will prevent containers being railed between Port Botany and an intermodal terminal at Eastern Creek, because of insufficient rail capacity.

The advantage of railing containers between Newcastle and Eastern Creek is that an intermodal terminal at Eastern Creek can be scaled to handle all container movements to 2050 and beyond. In addition, ample land is available for warehousing to manage the de-stuffing/stuffing of all containers on site so that all container-carrying trucks may be removed from Sydney's roads.

Additionally, it is more efficient to rail empty containers to Newcastle, where they may be filled with export goods from northern NSW, than trucking them back to Port Botany. Around 25% of all container movements involve empty containers. (Sydney Ports)

Investment in Sydney Freight Rail Capacity

Whereas the Australian government is investing heavily in increasing Sydney's freight rail capacity, little of this investment is for container transportation. The additional capacity will be used for freight entering Sydney from Queensland, Victoria and regional NSW.

\$960 million was spent building the "Southern Sydney Freight Line". Opened in January 2013, this 36km single-track, bi-directional line between Macarthur and Chullora, allows up to 48 freight trains a day, compared with 16 trains previously. (ARTC Annual Report 2013; transcript of interview, Hon A Albanese, 21 January 2013)

\$1.1 billion is being spent building stage 1 of the "Northern Sydney Freight Corridor". When completed in 2016, the improvements will allow 44 freight trains a day to pass through northern Sydney, compared with 29 trains now. (Press Release, Hon A Albanese, 20 July 2012) However, more capacity is required by 2028. (NSWFPS, page 109)

In November 2013, the Australian government announced work was starting on an inland freight rail line, between Melbourne and Brisbane. When this line opens in 2026, there will be little benefit for Sydney because "more than 75 per cent of road and rail interstate traffic entering the Sydney metropolitan area has its destination within Sydney", as noted in Northern Sydney Freight Corridor, Strategic Review Report, July 2012, page 24.

Freight is railed through the heart of Sydney because there is no bypass and to provide a rail service to Port Botany. Railing containers between Newcastle and Eastern Creek using a freight rail bypass of Sydney would remove the need for a freight rail line to Port Botany.

The economic and environmental benefits to be gained by devoting all of Sydney's rail capacity to passenger services, and removing container trucks from Sydney's roads, can be easily evaluated. This includes the return on investment in using the Southern Sydney Freight Line and Northern Sydney Freight Corridor for passenger trains instead of freight trains.

Removing all freight from the Sydney rail network, including the connection to Port Botany, releases 100% of capacity for passenger services, worth at least \$1 billion a year in savings to the economy. Deloitte Access Economic found: "In Sydney, for example, if rail absorbed 30% of the forecast increase in urban travel then congestion, safety and carbon emission costs could be reduced by around \$1 billion a year by 2025." ("The True Value of Rail", Deloitte Access Economics, June 2011, page ii).

Deloitte further reported: "Along the North-South freight corridor, if rail was to achieve a 40% share of the market then savings, in terms of carbon pollution and accidents, would be around ... \$630 million a year by 2030." (page iii)

There are other benefits for passenger rail. The proposed North-West Line can access the CBD via Strathfield, using the freight rail line from Epping and the dis-used freight rail corridor to White Bay. There would be no need to rail freight 24 hours per day through northern Sydney - \$4.4 billion can be saved by cancelling stages 2 and 3 of the Northern Sydney Freight Corridor (ibid, page 50), since all rail freight will use the bypass line.

Future Container Terminal Capacity

The future capacity of Port Botany container terminal is unknown. Says the NSW Freight and Ports Strategy: "Depending on the rate of growth, from a planning perspective it appears reasonable to expect that Port Botany might approach its natural capacity between 2030 and 2040." (page 30) Port Botany container movements would range between 7 million TEU and 13 million TEU by 2040 (NSWFPS, page 31)

After Port Botany container terminal reaches capacity, the NSW government's plan is for a container terminal at Port Kembla. A 36 km section of rail line would need to be built to connect Port Kembla with the Southern Sydney Freight Line.

If Eastern Creek was selected as the location for an intermodal terminal serving Port Kembla, access would be provided by the bypass line between Glenfield and Eastern Creek.

Integrated Construction Plan

Construction of a container terminal at Newcastle, an intermodal terminal at Eastern Creek and the freight rail bypass section between Glenfield and Eastern Creek, can all proceed simultaneously.

Container movements through Port Botany will decline by about 25% when a Newcastle container terminal commenced operations around 2018 (assumes around 25% of the NSW population live north of the Hawkesbury River and their demand for container services in proportion to population).

When the bypass line is completed between Eastern Creek and Newcastle by 2028, Port Botany container terminal operations can relocate to Newcastle. Essentially all road freight entering Sydney, north and south, can be transferred to rail.

There would be no need for a container terminal at Port Kembla to serve Sydney.

Evaluation

A rigorous cost-benefit analysis of all economic and environmental implications would both inform government policy and set clear commercial parameters for private sector investors, while enabling current commitments to investors to be upheld.
