

The Chairman,
IPART
PO Box Q290
QVB Post Office
NSW 1230

Late Comments – Train Fares

Dear Sir

Please accept my apology for late comments. I see the fare requests are unfair in a number of respects. I have been associated with commuter associations since 1988 and I feel that I am compelled to write to you with the feeling of a general injustice with a lack of concern and business sense of Cityrail and The State Government.

1. **Cityrail has the largest deficit of any rail operation in the country.** It has accumulated a treasury subsidy equal to the total rail deficit before the Federal Government's "One Nation" package. Lessons learned in rail reform have not been applied to Sydney Metropolitan operations.
2. **The State and Federal Governments** can be considered as a "hostile" entity when rail is considered. There are many factors why rail should be considered above road operations for a large numbers of cases. (Some are expressed in the following.) Yet, there are large amounts of money as well as most of the road taxes go back into roads. With the new southbound access to the F5 at Ingleburn, the local council has to participate with \$4.5 million of its funds. Hundreds of millions of dollars are going into Windsor Road to carry an extra 3000 cars per hour when 1/3rd of that amount in rail could have a potential 30,000 per hour capacity. Rail is the most efficient transport system we have, next to the bicycle and the sailing ship!
3. **If 10% of cars were removed off the roads**, congestion would almost disappear. As a result, road transit times would increase from 20 to 33% in peak hours. As expressed in the RTA's "Future Directions" executive summary, from free flowing traffic to congestion is a 5% increase, from congestion to grid lock is only another 5%! This displays the inability of any roads system to handle more than a set number of cars. At 110kph, only 1200 cars per lane can pass a point in one hour. At 60kph, this increases to 3000. This is why toll roads want slow peak hours to get more cars through the toll readers per hour!
4. With 10% of cars off the road, car idle time could reduce by 90%; **air quality could reduce** by 25% with reduced engine running time for a given trip.
5. **Leisure time** can increase with shorter journeys and that wasted time travelling behind a driving wheel would reduce. Rail offers transport within leisure time.
6. **The end of the oil age is near.** It is now 35 years since the peak of world oil discovery. The last giant oil field was discovered in 1982. The peak of world production was October 2001. World demand is rising at 2.5% per annum. If Iraq comes on line with its 4 years of world supply, demand should exceed supply around May 2008. Within 12 months following, expect to pay \$7-\$8 per litre. It took 70 years to use the first cubic mile (4 cubic kilometres) of oil. That is now consumed each year and rising. There is no fuel reserved for food production or military uses.
7. **We should be looking for ways to do the same transport task with less fuel.** An average car of 6.5 litres/100km uses the electrical equivalent of 0.7 Kilowatt-hour to travel 1 kilometre. An 8 car train uses 1 Megawatt-hour to travel from Campbelltown to the City in the peak. It can make two trips in the peak-hour with 1200 passengers each trip. Fuel wise, 2400 cars require 4,200 tonnes of petrol for a year compared with only 370 tonnes of coal for the same transport task by train.

8. Cityrail has an average **seat occupancy** of around 15%. There is not much opportunity to gain patronage in the peak periods. I have made submissions to them concerning their sectorisation displaying how they could better utilise their staff and vehicles to supply a more convenient, all day, Sydney wide transport system that people would use as an alternative to the car, which they do not have at present. If Cityrail endeavoured to double its patronage to 30%, say an average 2-way fare of \$5, another 900,000 passengers per day, this equates to \$4.5 Million per day or \$1642.5 Million per annum. This is more than the total Cityrail deficit!!
9. Cutting staff, **reducing operations**, slowing trains, inappropriate fare collection, and junction mistiming: these all go to producing a system that is not friendly to casual users or visitors to our fair city.
10. **Old Henry Ford said:** "Every railroad car on the tracks is a thousand less cars I can sell." General Motors took him at his word and went to find out why only 10% of city people bought a car. This is the beginning of market investigations. They found that people did not need a car. They had the transit systems. They were cheap, fast, reliable, a smooth ride and well organised. So they went with a "front" bus company, bought up the transit systems, put on smelly diesel buses on circuitous routes and the people said: "I've had enough! I'm going out to buy a car!" This is plainly displayed in a video from SBS called "Taken for a Ride". Similar comments were said around Sydney's trams in that the trams slowed the traffic and the cars needed the road space. Recently, these same comments were made by "authorities" about Melbourne's trams and reported in the Railway Digest.
11. **Electric rail is plugged into the future.** Any fuel source such as coal, oil, hydro, solar, nuclear, tidal etc can be used to power electric trains. Cars in their present guise need a mobile fuel, and lots of it! Sydney uses 23,000 tonnes of road fuel per day. 2,300 tonnes of alcohol per day for 10% substitution would be needed but NSW only produces 5,000 tonnes per year! Hydrogen at present comes from coal. The power station is 35% efficient; an electrolysis cell is 50% efficient so 1/6th of the coal energy is available as hydrogen. Place this in a car that is only 8% efficient and a total plant performance of around 1.5% is had.
12. Any chemical heat engine has **2 forms of pollution**. The first is the combustion waste and the other is waste heat. The Otto cycle engine (the petrol engine) has a maximum thermodynamic efficiency of 73%. Add to this another 25% out the exhaust pipe and 25% to the water jacket as waste heat, which leaves around ¼ of the original energy in the fuel for work. Attached to this is the losses of essential and non-essential items, transmission and tyres (which loses 25% of the remainder in the flexing of the cords) around 8% is available from a new, well tuned vehicle. This equates to only 8 cents of each \$1 of petrol is converted into work. Not only that, when you put on the brakes, all that accumulated potential energy gained by the vehicle is converted into heat in the brakes and all is lost as waste heat!
13. **The opportunity of our rail system to make an impact** on the way we get around our city is limited by vested interests (car companies, private roads etc), misdirected funding, inappropriate travel operations and Government intervention limiting rail management. If it was private, would it be any better? We have the experience of Melbourne and it failed. Peter Newman is the best in his field and he is no longer an advisor for NSW. A constant change of rail management befuddles experience. Over engineering adds cost. There is a story why we do not have 4 tracks across the Parramatta River at Rhodes. The freight network was not extended creating curfews. A ticketing system that is not passenger friendly. In short, Old Henry Ford is obviously quite happy in his grave!
14. **The social benefits** to our city that rail offers is larger than commercial operations. It could provide the means for a large number of people to have an alternative rapid transit system (in combination with bus feeder services) to the car. But, it will not happen while the system is inhibited from being the saving grace that our city needs. I think it is inappropriate to increase fares that will disadvantage many as well as my expressed view that it is stymieing the best opportunity for patronage increase. Under 16 cannot drive. Over 60, most cannot. There are others that cannot afford a car, medically unable, afraid, disqualified from driving etc. Nearly ½ of Sydney's population are directly disadvantaged by the roads system. An example: My soon-to-be daughter-in-law's car broke down (which is now back on the road). From Eagle

- vale to Minto by bus, train to Blacktown with changes, bus to work totals \$18 per day! This is around \$90 per week while only \$30 of petrol does the same job by road. Include \$2000 for vehicle on road costs and these amount to \$70 per week. Public transport is not cheap!
15. The problem is that **on-time running** is billed as the indicator of a good rail system. Skipped stops, excessive junction waiting time etc. are not included in performance data. Contra peak operations are almost non-existent in some areas. Cityrail does not include waiting times in total journey times. Many off-peak services are as poor as the minimum service quality of buses. Cityrail is oriented in getting people in and out of the CBD. Only 17% of jobs are in the CBD. 50% of jobs are west of Lidcombe and many places are no where near rail. Only 8% of peak journeys are by public transport and 5% of these are by rail. Where road journeys are rising by 5% per annum, Cityrail needs a 15% per annum rise to maintain its market share.
 16. Many of the problems associated with Cityrail are **not able to be fixed by IPART**. With all the technology, new track, stations improvements, the system is going from bad to worse. Who missed the problem of lack of drivers? Who missed the problem of the potential lack of vehicles? What will be next that is missed? Who will throw the next spanner in the works of an already misdirected system?
 17. **Slowing the trains** is espoused as a solution to the “on time running” problem. The “on time running” problem is due to the manner of operations, new OH&S regulations, vehicle loading times, infrequent services as well as end – to – end operations of Cityrail. To enable this to be improved, skip stops, taking trains out of service for a complete pattern, disadvantaging the few for the many is not a good operating practice. In fact, these latter factors would be better estimates of service quality than on time running!
 18. **PPP's** are known to return 20% to the private investor as against a treasury loan of 6.7%.
 19. **The Western Suburbs is bereft of public transport services** and is to the mercy of private buses in most areas. To illustrate the inability of Cityrail to comprehend the problem, the Cumberland Line is a good example. With \$67 million spent to provide the link, the service originally did not run in the peak hour! To display how popular this service was, the last train of 4 cars before the peak was at 6:37am and it had no seats available at the next stop, Leumeah! Consider this: 8 cars per hour, 960 seats, these people now in cars. 960 extra cars on already congested roads have called for the bolstering of the Cumberland Highway, the F5 and the new M7, at around \$2 billion! What would \$2 billion do for public transport in the Western part of Sydney?

Finally,

Attached is a copy of a paper I wrote for the Commuter Associations and Cityrail to digest. It is a reasonable presentation to having a new direction and being able to achieve some sort of self sufficiency by rearranging some of the aspects of sectorisation. This is having a view to making the “network” friendlier to the people that use the system as well as potential customers to be more “user friendly.” (I must admit that this term is over used and often over rated.)

We are entering a period of time where global warming (mellowed to climate change) will have a big effect on all of us. As displayed above, with help, we could be leaders in providing solutions to many problems. Raising rail fares is not one of them. Government responsibility to the residents of this country is. Pandering to foreign multinationals instead of global concerns is not. Encouraging systems that use less energy for a given task is one of them.

Considering that many long term glaciers have disappeared, Lake Chad in Africa was 200 kilometres across and is now less than 10, a tremendous quantity of melt water is being released into Russian rivers flowing north which could stop The Conveyor (The Gulf Stream) keeping Europe warm, the Roaring Forty's are now the Roaring Fifty's, the Ross Ice shelf is melting 40 times faster than in 1950, carbon dioxide is being released from the warm ocean sink, global temperatures have risen 1 degree C in a century: all goes to display that we are not managing our small planet very well.

There is one major problem to consider. We cannot go to another one when we have messed this one up!

Fixed rail systems offer the opportunity to solve some of our cities problems. They have the opportunity to move a large mass of people very quickly where the roads system cannot. This can be seen every day in our fair city and was also displayed in the hurricane areas of the US.

Raising the fares substantially will not recover a large amount of money for the treasury but merely reduce custom. What is needed is some encouragement for the rail system to reach its potential and solve some of Sydney's transport problems. How about something like a 1% increase in fares for every 5% increase in patronage? There are lots of other production incentives as well!

Best wishes on your investigations.

Yours sincerely

Bill Craig