

Transitioning Melbourne's transport systems to a low carbon future

Submission to Victorian Government regarding the EWLNA Study

Cr Janet Rice, June 2008

'But the Westgate is full, and the population of the west is growing – we just have to have another road.'

'When there's a blockage on the Westgate, we get cut off from the rest of Melbourne – we just have to have another road.'

'We need the tunnel and freeway to get trucks out of Yarraville and Footscray'

I understand the emotion behind these statements. I have personal experience of the frustration of being stuck in traffic on the Westgate going no-where.

I know the absolute need to get heavy freight vehicles off residential streets of Yarraville and Footscray

And there's no question that residents and businesses of the western suburbs need to be able to travel through and around Melbourne as freely as other residents.

These are the outcomes almost everyone would agree need to be achieved through addressing the transport problems faced in Melbourne. The big issue is how to achieve them. Sir Rod Eddington has proposed one set of solutions. I contend that a very different set of solutions which focus on demand management, will not only meet these aims but meet them in a more lasting way, more cost effectively and with considerably less impact upon the community and be more socially equitable. Critically they also address climate change and peak oil which must be central to any transport planning undertaken today.

Demand management approach

Australia and the world is in crisis in its response to climate change and decreasing availability and increasing price of oil. The impact and interplay of both of these issues must drive public policy in many diverse fields .

With regard to transport which is the second highest sector of greenhouse gas emissions in Australia and the fastest growing, it is critical that any major new policy or proposal helps to deliver cuts in greenhouse gas emissions and help our society deal with peak oil.

What is critically required is for the state government to develop a transport policy that puts climate change and peak oil front and centre of policy initiatives.

Sir Rod Eddington has not done that. He has not taken peak oil, and major increases in petrol prices into account at all in his analysis. He has used a 'predict and provide' model that presumes the patterns of travel of the past are the patterns of the future, and the patterns that we desire for the future. His analysis presumes the same proportion of trips being made by private vehicle as today – 90% of motorised trips. The trends of the last few years which have shown a big shift to public transport this assumption have already shown that these presumptions to be wrong. Ever increasing

petrol prices will only reinforce this trend. We are now on track to meet 20% of motorised trips on public transport by 2020, as long as we have sufficient public transport infrastructure.¹

Eddington's consideration of climate change has been similarly flawed, (with an acknowledgement that his report hasn't considered climate change in any great detail) and is limited to an unsubstantiated assumption that shifting to fuel efficient vehicles will be sufficient to address carbon emissions from transport². Considerable research shows that this is not the case (see Moriarty and Honnery³) Fuel efficient and alternative fuel vehicles will be a critical element of our response to climate change, but overall there needs to be fewer kilometres travelled by fossil fuel burning vehicles of any sort if we are to meet transport carbon emission targets of the required 80-90% reductions. Best practice hybrid vehicles will enable us to reduce emissions per vehicle by 50-75% (ibid), but it will take many years for everyone to have such a vehicle. These vehicles will be essential for all trips where other modes are not feasible, but to meet our carbon emission targets, mode shift away from cars to other less carbon intensive modes will be required.

It should also be noted that a model of premature replacement of an existing car fleet with hybrid vehicles would also result in a short to medium term increase in carbon emissions due to the embodied energy in the construction of these vehicles.

Relying on everyone having to buy a new fuel efficient vehicle is also socially inequitable. It means that people on low incomes who can't afford to buy such a vehicle will be disproportionately hit by increasing fuel prices if the required investment is not made in public transport to allow them to make the choice to not drive. In fact, it is likely that for lower socio economic groups that increasing fuel prices are likely to drive a greater shift to public transport walking and cycling than for other groups, rather than a shift to new expensive fuel efficient vehicles, as long as adequate infrastructure and public transport services are available to provide capacity for this shift.

In discussions about his report Eddington implicitly has acknowledged that low emission vehicles by themselves won't be sufficient, by asserting that because we value our personal mobility so much that we may choose to use a greater proportion of our limited carbon budget on transport – in other words that we won't cut our transport carbon emissions so much, and will leave it to other sectors to make even deeper cuts than they otherwise would have to. This is a fallacious argument – What other sectors does he expect will make up for transport? Our energy intensive export industries are seeking similar special dispensations; our brown coal generated electricity is highly inefficient with regard to greenhouse gas emissions per unit of energy produced.

The only currently foreseeable way to maintain personal vehicles at similar levels of use to today would be to have most of the car fleet being electric vehicles running on renewable electricity. Given we have a huge task in front of us converting our existing electricity demand in Victoria to renewable sources, let alone adding in the load of millions of vehicles, this is clearly not a feasible solution for many decades to come

The good news is that there are many different way to help achieve the required mode shift away from fossil fuel powered vehicles. The resultant transport mix with fewer private vehicle trips will

¹ Market Intelligence - Project - Understanding Patronage Growth, Department of Transport Slide Presentation 2008

² Eddington's climate change assessment was based on the Nous group's 'wedges report' to the state government which showed that increasing fuel efficiency substantially could result in carbon emissions reductions by about 50% by 2050. This is not sufficient for the 80-90% target for Australian emissions if we are to play our role in meeting the global 60% cut that scientific research shows we need to reach if we are to avoid dangerous climate change

³ Australian Car Travel: An Uncertain Future. Patrick Moriarty and Damon Honnery, 30th Australasian Transport Research Forum, 2007

also be cheaper for the community (less money on expensive petrol) and mean more efficient use of our existing road infrastructure. In particular, it will mean we don't need an expensive new road tunnel and freeway – our existing roads will be able to cater for our transport needs into the future.

The other good news is that the mode shift is already happening. Recent Vicroads data showed a 1% decline in vehicle use in Melbourne – a seemingly small shift, but highly significant in the context of previous ongoing increases. As previously mentioned big increases in public transport patronage shows that we are now on track to reach the government's target of 20% of motorised trips on public transport by 2020 – as long as the service and infrastructure is up to the challenge of meeting the increased demand.

The potential of demand management

Cars take up a lot of space. They are generally used very inefficiently in Melbourne, with most car trips only transporting one person. There are ample opportunities to reduce car use without impacting on our quality of life – in fact increasing our quality of life through increasing personal health and wellbeing through increased exercise and less stress.

Every lane of freeway in Melbourne carries at its peak between 1500 – 2000 cars per hour. That's only approximately two train loads of people. So the number of people filling up a new freeway, say three lanes each way, that's 4500 – 6000 people an hour - can be carried by a train every 10 minutes.

Currently only around 30% of people who live in the western suburbs and work in the inner city travel by public transport. Let's consider just the people of Brimbank, Melton and Wyndham. If the proportion of the population who commute to the inner city by public transport increased to 50% instead of 30%, this would mean (on today's population), around 7000 more people leaving their cars at home or at the park and ride in the suburbs – or two full lanes of freeway for two hours of the peak. Surely this is feasible, with decent public transport. It would mean that people who really did need to drive would still have room on the roads to do so. But we wouldn't need any more roads even with strong population growth.

I have attached the analysis I undertook based on 2001 census journey to work figures that I presented to the Eddington team late last year. It indicates that if the mode share of journey to work trips into the inner city from the western suburbs was doubled from 30% to 60% that journey to work car trips would not return to today's levels even with strong population growth for 17 years.

My message to government.

A framework for the future

- Develop a transport plan that has as its fundamentals climate change, peak oil and the resultant need to reduce car and truck use. This will be a plan for the low carbon future we require.
- Then backcast to work out how to get there
- Put any new road infrastructure development on hold whilst this plan is being developed.
No new road tunnel, no new freeway, no big new roads.
- Go full steam ahead on public transport initiatives– we know already that these will be crucial in having capacity to meet future demand – (for further details see my response to recommendation 2)

- Determine what levels of car and truck use are consistent and realistic over time as we transition to a low carbon future, taking population growth into account
- Determine what tools to use to reduce demand for car and truck trips to the levels consistent with the preferred future
- Determine what road capacity is then required for a bigger population living in a low carbon society.

Demand management tools – methods to reduce car use in Melbourne as painlessly and seamlessly as possible

Great public transport across all of Melbourne

- A network across all of Melbourne
- High frequency services with long span of hours, 7 days a week– All services on a 10-15 minute frequency 6am - midnight
- Fast services, including fast direct buses
- Integrated network
- Safety – staffing at stations
- Restructured public transport pricing, and removal of GST on public transport costs. Consider very cheap off –peak pricing, and low prices for outer suburban and cross city bus trips to build demand. One option would be to have a public transport levy that would be imposed on all households The levy would be higher in public transport rich areas and low in areas that currently have little public transport. Then all public transport trips could be free, other than those into and out of the inner city at peak times.

Encourage other modes

- Walking and cycling, and electric bikes
- Motor scooters and motor bikes
- Tele-commuting/ 4 day weeks

Making car travel less attractive

- Increased parking costs
- Mandatory pay parking for shopping malls
- Priority vehicle lanes for buses and high occupancy vehicles, and reducing space for cars on roads
- Consistent tram priority
- Increasing car occupancy
- Removing fringe benefit tax incentives for private cars

Freight (see responses to Eddington recommendations 5, 10 and 11)

- Freight logistics systems to improve freight efficiency
- Port related freight on rail / Multi-user intermodal hubs
- Dispersal of Dynon domestic freight yards
- Local small scale multi-user freight services

Urban planning

- Transit oriented development
- Pedestrian oriented design
- Employment in transit cities – government departments to relocate and incentives for private sector relocation

Specific Responses to Eddington's recommendations

***Recommendation 1** Planning work should commence for the staged construction of a new 17 kilometre Melbourne Metro rail tunnel linking Melbourne's booming western and south-eastern suburbs and providing a major increase in the capacity of the rail network.*

Supported. I support the undertaking of further detailed planning and feasibility for the rail tunnel. This planning should be undertaken using a transparent process and also consider other options that could meet the outcomes of further rail capacity through the inner city.

Such planning should not preclude however immediate work beginning on other identified rail projects, in particular growth area rail extensions to Bacchus Marsh, Sunbury, Mernda, Epping North, Cranbourne East, and immediate and detailed feasibility planning also being undertaken simultaneously for the long promised rail lines to Doncaster and Rowville.

***Recommendation 2** The Victorian Government should bring forward the construction of a new rail connection from Werribee to Sunshine (the Tarneit link) to significantly improve the frequency and reliability of services from Werribee, Geelong, Ballarat and Bendigo. The Government should commit to using the new rail tunnel and Tarneit link as the foundation for extending the metropolitan rail network further to the west within the next 15 years.*

Supported. This link should be build as a suburban electric service from the outset and connect Werribee with an appropriate activity centre in the Sunshine – Caroline Springs corridor. It would enable suburban services from the Werribee region to the city in two directions and hence provide a very high frequency service from Werribee transit city. It is critical that the connection between Werribee and Geelong is maintained to be as efficient as possible, particularly if Geelong trains are routed via Sunshine as planned. Werribee then becomes a critical transfer point for all Geelong bound passengers between Footscray and Werribee.

***Recommendation 3** During the planning and construction of the rail tunnel, the Victorian Government should continue to make better use of the existing network to increase capacity, including commencing work on the electrification of the network to Sunbury to boost services on the Sydenham line.*

Strongly supported. It appears from my knowledge of the rail system that contrary to the position espoused that the system is at capacity, that there is considerable room for more services.

It may be valuable for a review of the operations of the network to be undertaken by an independent international expert and for this review to be made public in the interests of transparency and to help definitively determine the capacity of the system when certain improvements are undertaken.

Key actions that I understand are capable of being undertaken include those that have been identified in the analysis of rail capacity constraints technical report undertaken for the Eddington study:

- Making full use of all direct to Flinders St tracks from Southern Cross
- Running Gippsland V-line services from Flinders St, not Southern Cross
- Reducing dwell time at Flinders St by having driver changeover occur not at Flinders St
- Having all city station platforms staffed during peak hours to signal all clear, to facilitate faster boarding of trains and to load and unload passengers in wheelchairs
- Making full use of passing loops in the system for running of express services
- Identifying elements in the system that mitigate against the running of 22- 24 plus trains per hour and taking action to eliminate these choke-points
- Running peak hour service levels during the current shoulder peak periods
- The proposed Tarneit loop and dedicated V-line track between Sunshine and Footscray

I understand that many of these actions will be incorporated into the new timetable that is to be brought into use in November, and that the capacity created in the new timetable would enable immediate introduction of the extra services required by the Whittlesea and Sunbury extensions. The review I

propose would determine whether there was sufficient capacity into the system to allow for the proposed new services to Melton/ Bacchus Marsh, Doncaster and Rowville prior to the new tunnel or equivalent infrastructure coming into operation.

Recommendation 4 *Planning work should commence on the staged construction of a new 18 kilometre cross city road connection extending from the western suburbs to the Eastern Freeway.*

Strongly disagree - as per discussion above

Recommendation 5 *Community amenity in the inner west should be restored by implementing a Truck Action Plan to remove truck traffic from local streets in the inner west. The plan should include a series of targeted road improvements that form an effective bypass around residential areas, reinforced by local truck bans.*

Partially agree.

I strongly support the following elements of the truck action plan

- Paramount Rd upgrade. This should include a re-routing / extension of Paramount Rd to replace Dempster and Sredna Streets. The route should through the industrial zone west of the existing route
- Upgrade of Cemetery Rd and interchange with the Westgate
- I support with reservations the proposed on-off ramps at Hyde St. Such ramps should only go ahead if transport modeling that is grounded in demand management as discussed above shows the need for extra road capacity from the west to the inner city and port. My concerns with these ramps are amenity issues for Spotswood residents and potential loss of parkland on both sides of Stony Creek. If this proposal goes ahead any parkland/ open space lost must be replaced.

It is inevitable that if these ramps were to be installed it would mean significantly greater use of Whitehall St and traffic through the Whitehall St- Napier St intersection. The intersection would need to be upgraded and Shepherds Bridge would probably need to be widened. Any upgrading of these roads should include measures to reduce impacts on nearby residences.

These ramps and Whitehall St upgrading would create more capacity from the west. It would be important that traffic management measures be introduced to ensure that traffic is simultaneously reduced in Buckley St and Whitehall St north of Footscray Rd.

- I have strong reservations about the Dynon Rd - Smithfield Rd link. The main reason such a link is proposed it seems is to enable greater use of Geelong Rd, and allow Moore St to be by-passed.

The only circumstances I think such a link should be considered would be if it was a freight only link, and that the need for this capacity was demonstrated in a reduced demand transport system as outlined above.

If required it should not be across Newell's Paddock. It should only be considered on the east side of the river, where it would need to be in a tunnel under the Kensington Banks riverside park. The impact of this road if it were on the west side would not only be on Newell's Paddock but it would create a barrier between the river and the residential areas of Footscray to the direct west, the proposed Joseph's Rd residential precinct and the Heavenly Queen temple on Joseph's Rd (currently under construction)

- I strongly don't support the upgrade of Ashley St north of Sunshine Rd and the widening of Ballarat Rd. These measures would just shift truck traffic from one residential area to another.

Other infrastructure options - including relocation of the Coode Island chemical storage

The proposed Hyde St ramps would be a much more attractive prospect if they were accompanied by a new bridge across the river between Francis St and Somerville Rd directly into the Port so that they did

not need a lengthy stretch of elevated road along the river. This would have the added significant advantage of large traffic reductions on Whitehall St.

However this route is clearly problematic with the location of Coode Island chemical storage. The solution to this is quite simple in concept- shift the chemical storage to West Point Wilson or Point Lillias as proposed by the Coode Island Review Panel in the early 1990's. The storage doesn't have a long term future in inner Melbourne - it is completely inconsistent with the increasing desirability of maximizing inner city land for high value uses such as high density residential development. The existence of Coode Island severely limits residential development in the riverside areas of Footscray and Yarraville, and potential residential development west of the existing Docklands precinct.

Truck bans

I propose that all current truck routes through Yarraville and Footscray should have immediate bans imposed on through truck movements outside of peak hours. This would include Francis St, Somerville Rd, Buckley St, Moore St and Whitehall St north of Footscray Rd.

In addition the definition of a through truck should be revised so that trucks with an origin-destination in the Tottenham - Brooklyn precinct are not designated as local trucks - they should be using the Westgate corridor to reach the port or other destination.

This would restrict through trucks to the Westgate Freeway - City Link, Whitehall St, Dynon Road east of the Maribyrnong and the Paramount Rd- McDonald Rd- Millers Rd route. Once the Paramount Rd upgrade is completed, intermodal hubs are established to facilitate freight on rail, and public transport capacity increased through the short term operation measures outlined under recommendation 3 above, then the truck bans should be 24 hour bans.

In the short-term whilst public transport improvements and freight logistics improvements were being introduced this would increase congestion on these routes. This is itself is a part of demand management - it increases the attractiveness of the non-road options namely public transport use and freight efficiency improvements and rail freight.

***Recommendation 6** Public transport to the Doncaster region is best provided by rapid, high quality bus services, additional bus priority measures and a major new bus-rail interchange at Victoria Park. To deliver this standard of services, the DART upgrade announced in the 2006 Meeting Our Transport Challenges plan should be introduced as soon as possible, along with additional service enhancements and bus priority measures undertaken in conjunction with Recommendation 4.*

I support DART as an interim measure. I believe the rail extensions into the growth areas of the west and north are a higher priority than Doncaster rail, but that Doncaster rail should be built in the next decade.

***Recommendation 7** A number of specific links should be progressively built to improve cross city cycle connections and cater to the growing number of Melburnians cycling to work.*

Strongly support. These connections should be planned with local government and community input. Of equal importance are measures to dramatically increase the use of bikes for accessing railway stations - this needs to include high quality routes to stations. Additional routes that need to be included are:

- Newport to Port Melbourne that incorporates the bike punt,
- Footscray to Sunshine direct route
- Dynon Rd - particularly the entrance into the CBD.
- Cross CBD- there needs to be a high quality east-west bike route in the north and south of the CBD. One option is to close one of the 'little streets' to vehicle traffic other than for deliveries within designated hours, and have this as a two way bike- route.
- Docklands to South Melbourne

Recommendation 8 *The Victorian Government should work with local councils and relevant agencies to escalate city-wide implementation and enforcement of priority measures for trams and buses.*

Strongly agree. This should include priority bus lanes as required, and consistent tram priority measures at intersections. Extensions of clearways is often not the best solution as this provides greater capacity for commuter car traffic even more than for buses and trams. Other solutions include raised on-road platform stops for trams, with limited parking permitted between stops, and other measures such as traffic metering through intersections on tram routes.

Recommendation 9 *A dedicated fund should be established to facilitate the development of Park & Ride facilities, with priority given to improving access to rail services in Melbourne's west and facilitating public transport patronage in the Doncaster corridor.*

Very limited support. Only in certain outer suburban low density situations as an interim measure, with a much greater priority given to increasing fast frequent direct bus services to stations and quality bicycle access to stations and bike parking facilities. These facilities are much more cost effective and sustainable than large expansion of park and ride which at \$17 000 per space is a very expensive, unsustainable and unwieldy way to provide access to stations. Introducing pay parking at railway stations would encourage more judicious use of this park and ride facilities. Research undertaken at Footscray station by Maribyrnong Council two years ago showed significant numbers of people parking at the station who were not accessing the rail system. Recent research has also shown that a very substantial number of people using park and ride spaces live within walking distance of the station. Finally, it will be impossible to provide car parking for the increased numbers of people who are catching trains over the coming decades. There is insufficient land around stations and it should be used for higher value purposes than car parking

Recommendation 10 *The Victorian Government should re-evaluate its 30/2010 rail target (which aims to move 30 per cent of freight from and to all Victorian ports by rail by 2010), given the clear finding by the EWLNA that it cannot be met. The Government should create a new strategy and work with industry to develop and implement a detailed action plan for moving more freight by rail.*

and

Recommendation 11 *The Government should take action to increase rail's share of freight by:*

- Ensuring the development of a single, common user, interstate, intermodal freight terminal north of the city on the Melbourne to Sydney rail corridor
- Developing the standard gauge rail freight network to connect the interstate intermodal terminal with the key metropolitan freight hubs
- Making and announcing concrete planning decisions about the future sites for metropolitan freight hubs
- Ensuring that all future transport plans build in the connection of the Port of Hastings to the interstate standard gauge rail network.

Strongly agree. Urgently required and a new target and a new timeline needs to be set. These measures are absolutely critical in reducing the amount of port related freight carried by road. Multi-user intermodal hubs are also necessary instead of B-triple or Super B-double trucks. The establishment of outer suburban intermodal hubs would also allow the dispersal of domestic freight movements from the Dynon yards, and reduce truck movements into the Port precinct substantially. The POMC are currently undertaking research into the destinations of all truck movements in the truck precinct. Draft findings of this research shows that two thirds of truck movements in the precinct relate to the wholesale markets and the Dynon yard domestic freight movement. With the markets moving and the potential decentralization of the domestic freight movements this would mean a very substantial drop in truck movements into the port precinct.⁴

I also recommend a critical independent review be undertaken of forecast freight growth as part of the transport plan outlined above. Global freight movements will be impacted by climate change and peak oil, and this has not been taken into account in current freight forecasts

⁴ Hermione Parsons, POMC, pers comm. at Western Transport Alliance meeting, June 08

Recommendation 12 The Port of Melbourne Corporation should be given overall responsibility for implementing an intermodal hub network in Melbourne, including responsibility for achieving the Government's revised rail freight target.

Disagree. This should be the responsibility of government, targets should be set and be reported on regularly. A steering committee with representatives of industry, the Port, local government and the community which would have strategic oversight of these goals should be set up. The Port and major freight industry players should work in partnership with government to implement the required actions to meet these aims.

Recommendation 13 Given the projected increase in the metropolitan freight task, the Government should take further action to improve the efficient movement of road freight by permitting the introduction of high productivity freight vehicles on designated routes.

Disagree in as far as 'high productivity freight vehicles' translates to B triples and super B doubles. These have no place on the vast majority of our roads and would only be considered on routes between intermodal hubs - these journeys should be undertaken by rail.

Recommendation 14 The Government should continue to implement *Melbourne 2030* and take stronger action to accelerate the development of vibrant suburban hubs in Melbourne's west, particularly Footscray, Sydenham, Sunshine and Werribee.

Strongly agree. Strongly support the concept of Footscray being considered as part of the expanded CBD. As such some government offices should be relocated to Footscray to kickstart it as a major office hub.

The transport implications of this are also that we should be aiming for very substantial public transport, walking and cycling mode share into Footscray as its future density of residential and commercial development will mean traffic chaos if the transport mix is overwhelmingly private vehicles. Sunshine and Werribee also have great potential, Werribee in particular because of how it relates equally well to Geelong as to Melbourne, and Sunshine as the junction of the Melton and Sydenham- Sunbury growth corridors. Sunshine in particular has enormous potential for renewal, and like Footscray a community that I expect would be supportive of higher density development as long as it is high quality and doesn't impact on existing residential areas.

The critical transport needs of transit cities are not just high frequency train services but high frequency feeder bus and tram services with priority on roads, and intermodal interchanges.

Recommendation 15 *Through the Council of Australian Governments - and working with the Australian automotive industry - the Victorian Government should pursue measures to bring Australia into line with European CO₂ emissions standards for motor vehicles.*

Strongly agree

Recommendation 16 *The Government should develop a clear strategy for increasing the proportion of low emission, efficient vehicles operating in Melbourne.*

Strongly agree, although noting that low emission vehicles in themselves will not allow us to reach our carbon reduction targets (see Moriarty and Honnery)

Recommendation 17 *The Victorian Government should seek early discussions with the Commonwealth Government regarding a funding contribution from AusLink towards some or all of the EWLNA recommended projects. The Government should also work with the Commonwealth to extend AusLink to transport projects designed to relieve urban congestion.*

Agree - particularly so that Auslink funds can be used for public transport projects

Recommendation 18 The Victorian Government should consider a funding structure for the proposed new Metro rail tunnel that includes contributions by beneficiaries (including public transport users and property owners across Melbourne).

Partially agree - consider in association with a city wide public transport levy as discussed in my discussion on demand management

Recommendation 19 *The Government should re-evaluate its current road tolling policy to ensure that the long term benefits of new road investments can be fully realised (including public transport priority, improved cycling opportunities, road network balance and improved local amenity).*

Agree. Road pricing on a broader scale, including off peak pricing, rather than just tolling new roads would lead to better and more efficient use of road infrastructure throughout Melbourne. Social equity considerations need to be taken strongly into account when considering road pricing policy.

Recommendation 20 *A single statutory authority should be created to deliver the EWLNA recommended projects, using a 'corridor approach' to planning, managing and delivering the full suite of projects*

Disagree. If a statutory authority is to be established it should be a Melbourne wide planning and transport authority, with community and local government representation on its board.