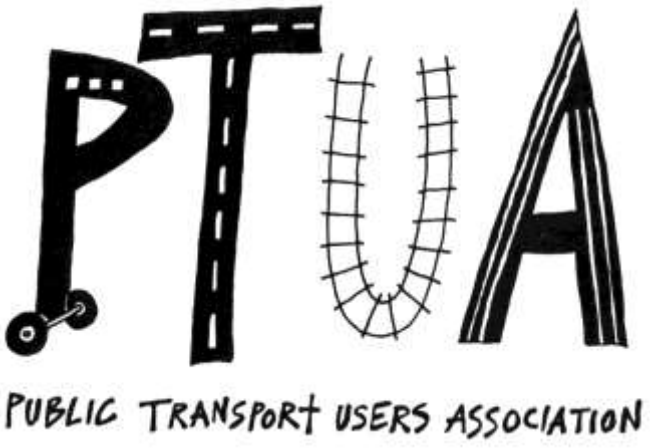
# Submission to the Victorian Government

# On the East West Link Needs Assessment




**July 2008**

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Page numbers in the text refer to the full East West Link Needs Analysis "Investing in Transport" report, unless otherwise specified.



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# Summary

While the PTUA acknowledges the substantial body of work presented in the Eddington East West Link Needs Assessment (EWLNA), 'Investing in Transport', and welcomes certain of its less dramatic proposals as long overdue, we are disappointed in the report's limited scope of east-to-west connections, its artificial 'study area boundary' apparently drawn up to match with a freeway proposal, its failure to engage with 'best practice' in transport planning, and bemused at its flawed assumptions which have led to conclusions making no sense in a world of spiralling petrol prices and climate change.

Previous studies, such as the Northern Central City Corridor Study, showed conclusively that travel patterns between the eastern and western suburbs did not justify a cross-city motorway connection. The EWLNA itself implies in its conclusions that the cross-city road tunnel has a conventional benefit-cost ratio (BCR) of 0.45, and a BCR with 'wider economic benefits' of 0.73, implying the project is a waste of money even with the generous assumptions that underlie traditional cost-benefit analysis of road projects. The recent rises in oil prices, which are expected to continue, simply underscore that large-scale road-building can no longer be justified.

While public transport infrastructure is generally to be welcomed, the PTUA has reservations about the proposals in the report, noting that more cost-effective projects with a better "bang-per-buck" would do more to increase the usability of public transport (and therefore increase mode share) quicker and at less cost to the taxpayer.

In particular we reject the view that the central-area capacity of the Melbourne train network is a barrier either to the immediate construction of long-overdue suburban rail extensions, or to the immediate boosting of peak and off-peak train services. Other barriers to these measures do exist, but they relate to the management of the system and to deliberately created shortages in rolling stock, not to track infrastructure. While it is prudent to undertake long-term planning for new central-area train lines, all the elements of a true 'metro-style' rail system already exist, and the priority for the next decade must be to extend its coverage substantially in ways suggested as long ago as 1969, to boost service levels outside peak hours, and to reorganise our dysfunctional suburban bus services to provide a network with 'Every 10 Minutes To Everywhere' functionality. (See section C.)

Not only does such a public transport alternative for Melbourne promise greatly superior outcomes for travellers, who will finally have a genuine alternative to increasingly expensive car use whether they live in the inner city or the suburbs: it also costs a great deal less than the EWLNA proposals, making the financing of these initiatives a much less daunting task. It provides an alternative sustainable transport pathway to 2031 that, on international evidence, can be expected to avoid the pessimistic projection from the EWLNA of no substantial reduction in private car mode share. Such a reduction will be necessary, not only to avoid the threat of dangerous climate change (notwithstanding the potential for technical advances), but also to avert a general economic collapse due to the unavailability of cheap oil in coming decades.

# A. Questions posed by the Department of Transport

## *What do you think are the transport challenges facing Melbourne?*

In some respects, the transport challenges facing Melbourne are those which face any major city at any time, and which have challenged Melbourne in particular for most of the last century. Put simply: how are we to ensure that people can move around Melbourne on their daily business and myriad personal activities without undue inconvenience or detriment to others, and that goods can likewise be transported efficiently?

The main impediment to convenient and efficient movement of people and goods has traditionally been traffic congestion, which in Melbourne occurs chiefly (but by no means exclusively) in the weekday peaks. To this, we must now add the chronic overcrowding seen on trains and trams in peak times, and social and economic exclusion among people who lack transport options.

Besides congestion, the transportation of people and goods has adverse impacts including pollution, crashes, alienation of land, and the diversion of public funds from other socially beneficial uses such as public health, education and community safety. This creates the imperative for transport systems to be safe, to be cost-effective, to economise in land use, and to minimise harmful emissions. Again, this has traditionally raised serious challenges in Melbourne related to such matters as budget priorities, project finance, air pollution, road trauma prevention and, more recently, the spike in level crossing collisions.

Inextricably entwined with these challenges is the issue of car dependency for Melbourne residents. Transport experts have long known that a principal determinant of traffic congestion levels is the quality of alternatives to car travel, even more than the quality of the roads themselves. When people are effectively forced to do all their travel by car, as is the case almost everywhere in Melbourne at present, the challenges arising from extensive car use become particularly acute and particularly intractable if alternatives are not considered.

Alongside these traditional challenges, there are two external factors that now underlie virtually all transport challenges facing Melbourne and the rest of Victoria:

1. Climate change, and
2. Peak oil.

These forces will shape future challenges such as demand pressures on infrastructure and services, access to social and economic opportunities, and business competitiveness. While some people seem to believe that both challenges can be met through technical change alone as the EWLNA largely assumes, the weight of historical evidence and the sheer scale of the problem make such a position untenable (see detailed response below, items 15 and 16). A genuine response to these challenges therefore requires that public transport increase its share of motorised travel at the expense of private cars, and that a greater proportion of journeys be undertaken by active transport (walking and cycling). Equally importantly, more freight should be moved by rail, in the form of short distance shuttles between ports and intermodal hubs, and interstate haulage (see Part B, items 10 to 13).

## *Do you think any of the recommended projects should be prioritised?*

Subject to certain caveats, the following projects should be prioritised:

3. Better use of the existing rail network, including Sunbury electrification

5. Elements of the Truck Action Plan

7. Improved cycle links

8. Public transport priority measures (subject to local government and community involvement)

11. Improving rail's share of freight

The following projects should be immediately rejected:

4. Cross city road tunnel

9. Dedicated fund for Park & Ride facilities

These reasons for prioritisation or rejection are further elaborated in our detailed responses in Part B.

## *High level assessment of recommended projects*

| *Do you think any of the recommended projects....* | **PTUA Response** |
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| *Improve links between Melbourne's East and West?* | For the metro rail tunnel, links to and from a narrow band along the route of the tunnel may be improved. However this represents a very small proportion of travel which could be adequately served by a well integrated network of services covering a much broader area than the rail tunnel. |
| *Help protect Victoria's economic vitality?* | As the proposed road tunnel has an implied benefit-cost ratio less than unity, it will have a detrimental effect on the Victorian economy. |

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| *Support Victoria's long-term prosperity?* | A shift to lower carbon transport practices is required if Victoria's economy is to withstand the carbon constraints of peak oil and climate change. This requires much larger roles for active transport, public transport and rail freight than are proposed in the Study. Measures that undermine or crowd-out public transport and rail freight - such as major road projects - are a serious liability in a post-carbon economy and should be rejected.<br><br>Car dependence is also a major drain on local economic performance, since the contribution to employment and income of expenditure on petroleum and motor vehicles is much lower than the contribution of other household expenditure (PTUA 2007a, pp.37-38). Since the recommendations of the Study have negligible impact on car dependence, they do little to support Victoria's long-term prosperity. |
| *Make our community more liveable?* | Of the various proposals, only the Tarneit line actually envisages new sustainable transport services in areas that are currently car-dependent. |
| *Address issues of social disadvantage?* | While the Tarneit line would provide better public transport into developing housing areas, most of the other public transport proposals in the report provide more capacity to existing rail lines, rather than bringing services into those areas of Melbourne most affected by lack of mobility, car dependence and social disadvantage.<br><br>Proposals for road expansion do nothing to help those affected by these issues, and in fact exacerbate such problems by encouraging more car-dependence and urban sprawl while potentially crowding out more inclusive and sustainable alternatives. |
| *Make Victoria more environmentally sustainable?* | Major expansion of the road network will have a negative impact on Victoria's sustainability, by encouraging further growth in car travel, undermining public transport.<br><br>The public transport projects proposed are unlikely to have a substantial effect on increasing public transport mode share, and therefore do little to improve Victoria's sustainability. |

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| *Help to address road and public transport congestion?* | The expansion of road capacity has been discredited as a response to traffic congestion. The quality and availability of transport alternatives is a more important determinant of road network performance over the longer term (PTUA 2008b, pp.15-19). The recommendations of the Study do little to expand the coverage of high quality public transport that would succeed in attracting currently car-bound commuters from their vehicles and relieve pressure on the road network.<br><br>The Study also overlooks a range of measures that would relieve overcrowding on the public transport system. These are further discussed in Section B(3). |
| *Help to address future travel needs?* | As detailed above, transport will be affected by the issues of climate change and peak, but this has not been adequately addressed by the EWLNA. |

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| *Reduce reliance on the West Gate Bridge?* | The West Gate Bridge is simply one major piece of transport infrastructure, among many in Melbourne. Every freeway and rail line in Melbourne is at risk from disruption, and rail line outages will often affect more people than similar outages on freeways. The unscheduled severing of the Ringwood train line by Eastlink works in 2006 interrupted more journeys than were taken on the West Gate at the time in question, and if protracted, would have resulted in a larger impact than the one-day blockage of the West Gate in 2005.<br><br>This does not mean we have to duplicate every major piece of transport infrastructure in Melbourne: it means a combination of risk mitigation, effective emergency response and sensible contingency plans. The Eddington road tunnel would just create one more risk to manage. What is the 'alternative' when Melbourne has a congested bridge *and* a congested tunnel and one of those becomes unavailable?<br><br>In terms of passenger transport, the West Gate Bridge is not even the most significant link to the western suburbs of Melbourne. In morning peak hour, a quick calculation shows that more passengers travel through Footscray station in trains than cross the West Gate Bridge in cars. Off-peak, there is sufficient latent capacity in the existing western suburbs train network, and the train lines to Geelong and Ballarat, to remove every single passenger vehicle from the Bridge. The failure of public transport to compete with the Bridge for travel rests with poor network connectivity and the failure to plan services effectively, not with any intrinsic disadvantages of public transport. The Bridge is much more important for its role in freight transport; but it is passenger transport that causes the congestion, and were it not for the huge volumes of passengers forced into cars by inadequate transport alternatives, there would be ample capacity in the existing road network to accommodate the anticipated growth in freight traffic, even without a substantial shift of road freight to rail. |

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| *Have a positive or negative impact on traffic levels in suburban streets?* | While major road proposals are claimed to have a positive benefit to local suburban streets, there is real doubt about the long-term effect. Expanding road capacity inevitably leads to greater traffic volumes overall, as people are encouraged to drive further and more often, and as has been seen with Waverley Road in East Malvern [Source: http://www.ptua.org.au/myths/congestion.shtml ], while initially vehicle numbers may drop, in the long term there is little difference and the road fills up again.<br>The current Victorian Government opposition to charging for existing roads also means that a tolled road tunnel would inevitably lead to rat-running through local streets. |
| *Sufficiently address long-term issues?* | As detailed above, emerging long-term issues such as climate change and peak oil have not been adequately addressed by the EWLNA. |

## *How do you think the recommended projects strengthen or weaken the integration of the transport system? To what extent do you think the projects could complement each other to provide integrated transport solutions for Melbourne's East and West?*

Contrary to the view commonly asserted by the proponents of road projects, there is no meaningful sense in which big new road projects and public transport projects are in any way 'complementary'. To say these are complementary is to imply that road-building somehow promotes greater use of public transport, and vice versa - or at least, that demand for travel by car and travel by public transport are independent of one another. This flies in the face of all empirical evidence and the consensus of transport planners (Zeibots & Petocz 2005), which is that new roads encourage a mode shift from public transport to private cars (for example, the drop in patronage on the Glen Waverley train line following completion of the Monash Freeway), while new rail lines encourage a shift in the reverse direction (for example the Northern Suburbs line in Perth, of which a quarter of patrons formerly travelled by car). Victorian Budget Papers document the decline in public transport mode share following the opening of CityLink in 2000, and show only a modest recovery with the surge in train patronage since 2005.

The real 'complementary' effects in transport are among the various sustainable modes of travel: trains, trams, buses, bicycles and walking. A typical public transport user in a city with a functioning system may walk to a bus stop, catch a bus to the nearest railway station, board a train to travel across town, then transfer to a tram which takes them to their final destination. Others will cycle to the station and then either store their bike in a compact facility or take it on board the train. Efforts to shoehorn private cars into this mix are rarely successful. 'Park & ride' as a mode of access to railway stations adds to traffic congestion and alienates valuable real estate near stations that would otherwise support transit-oriented developments, and grows train patronage at an average cost of $17,000 per additional passenger - a huge capital outlay by

comparison with feeder buses that can deliver large numbers of people to train services using an existing arterial road network.

For these reasons the scope for the larger EWLNA projects to integrate the transport system and 'complement' one other is limited or nonexistent. There are on the other hand some fairly obvious synergies between certain of the smaller projects that we support, such as between improvements to the cycling network, public transport priority measures, and works to remove large trucks from residential areas.

## *How do you think the projects rank alongside other Victorian priorities?*

A number of the projects, particularly those we recommend should be rejected, are much lower priorities than a range of other pressing needs including expanding the coverage of fast, frequent, reliable and affordable public transport services, and decarbonisation of the stationary energy sector.

Other traditional government priorities, such as public health, education, community safety and social services have a legitimate and substantial call on public funds. It would be unfortunate if these priority areas were left short of funds for the sake of multi-billion dollar transport projects that promise no tangible outcomes for Victorians.

# B. Detailed Response to Proposals

The numbering of items in this section follows that of the recommendations in the EWLNA report.

## *1. Metropolitan east-west rail tunnel*

The PTUA has for some time called for expansion of the rail network into middle and outer metropolitan areas that currently have no rail access. Many of these network extensions - including those to Rowville and East Doncaster - originated with the 1969 Melbourne Transportation Plan and were due for implementation following the construction of the Melbourne Underground Rail Loop, which opened in 1981. They are now accordingly some 27 years overdue for implementation.

Until very recently, the pretext for not considering these rail extensions was that demand for public transport was not sufficient to justify them. The EWLNA persists with this argument in relation to the Doncaster line, as discussed in item 6 below. In recent years, however, the unfortunate view has grown in official circles that new rail extensions are precluded not by insufficient demand, but by excessive demand. Specifically, the EWLNA has accepted uncritically the argument of the current Melbourne public transport management that central-area track capacity is insufficient to allow a large increase in peak-hour train services, such as new rail extensions would entail. It is argued that, in fact, adequate capacity will not exist in the network until we have spent 10 years and $8 billion building a new underground rail tunnel between Footscray and Caulfield.

There is no doubt that a new underground tunnel between Footscray and Caulfield, serving the University of Melbourne and the St Kilda Road precinct, would be an improvement to the inner-city transport network. This much is obvious. What is in doubt is whether this is the best possible use for an $8 billion investment in Victoria's public transport system in the next decade; especially given the EWLNA expresses the view that even with this new tunnel, public transport mode share in 2031 would not be significantly greater than it is in 2008. But what should be immediately discounted is the idea that this rail tunnel is a prerequisite for suburban rail extensions. In the case of the Rowville and Doncaster lines, these were already present in the 1969 plan, and this plan made clear that just one City Loop, not two, were needed before these could go ahead.

The City Loop, built in the 1970s to double rail capacity (EWLNA, p.52), is currently not being operated in the way its planners intended. Instead, the Loop and the wider train system are being run in a way that wastes capacity, so that we are now facing an apparent capacity crisis despite still running the same number of trains in peak hour as ran in 1964 before the Loop's construction (while attempting to carry 20 per cent more passengers).

Many of the operational deficiencies with the central-area system are in fact documented in Section 2.2.2.1 of the *Transport Supply and Demand* report prepared by consultants SKM, Maunsell and others, and made available as a supporting document on the official EWLNA website. These include:

- Limited sectorisation, mostly due to the current practice of running nearly all services through the Loop, rather than a mixture of Loop and direct services as envisaged by the original planners. This practice in fact dates from 1993, the year train service provision in Melbourne hit a minimum. With the relatively small number of services then running, there were no capacity issues posed by effectively running all trains on the same path, and so this offered a significant operational simplification. After many years of denial, it is now recognised at official levels that this practice wastes capacity, and as

of November this year operations will be revised to reintroduce a substantial level of through running and remove many of the path conflicts.
- Long layovers for crew changes at Flinders Street Station. As these can last up to 10 minutes they clearly waste substantial capacity, but the *Supply and Demand* report notes that this can be rectified by transferring the crew changeover function to suburban termini.
- The current practice of running V/Line trains from Gippsland through to Southern Cross Station, which greatly reduces the capacity available for suburban trains on the through track. This capacity could be made available again by the simple expedient of making Flinders Street Station the terminus for Gippsland trains, reflecting historical practice up to the 1980s, and laying over the trains at the underutilised Platform 13 or a restored Platform 11.

- Dwell times at central city stations that are very long by international standards, and which the report says could be improved through a number of measures, the most important being the reintroduction of platform staff, who would be able to assist wheelchair passengers without driver intervention and help manage the flow of passengers on and off trains.

Unfortunately, only the first two of these issues are being actively considered in current capacity improvement plans. There are in addition a number of other operational inefficiencies the PTUA and others have identified which have yet to be considered at official levels, mainly to do with the effective utilisation of portions of the central area track layout that now largely sit idle, to maximise throughput at peak times.

For example, at North Melbourne Junction there is a flyover for the Craigieburn line, which can be used to allow trains on this line to run either via North Melbourne platforms 1 and 2 (and via the Loop) or via platforms 5 and 6 (and through to the eastern suburbs). At present, the latter route is used only for empty car movements and for special events trains a few days per year. Yet if placed into regular service it would allow the Craigieburn line to be used to 'balance' throughput of trains on these two paths in peak hour, achieving a practical capacity for the Northern suburban group roughly double the present assumed capacity of 20 trains per hour (as stated in the EWLNA). V/Line trains would have their own dedicated path via North Melbourne platforms 3 and 4, with the only capacity limitation then being the 'flat junction' conflict between V/Line trains and outbound suburban trains from Southern Cross platform 11. (It is due to this conflict, which also occurs in current operations, that the practical capacity would be less than the 72 trains per hour that are practically achievable with 2-minute signalling headway on three completely independent tracks.)

Considering all the evidence, we take the view that:

- It is prudent to undertake long-term planning into a future cross-city rail tunnel, essentially along the lines suggested in the EWLNA, to cater for future needs possibly extending beyond the 180 suburban trains per hour envisaged by the planners of the first City Loop (currently there are 96 trains in the busiest hour of the peak).
- In the meantime, central-area track capacity is in no way a barrier to the immediate construction (subject to design and planning by recognised experts) of suburban rail extensions as described in Part C of this submission. The priority for project delivery to increase public transport mode share in the next five to ten years lies with these suburban extensions and other public transport improvements to provide fast, frequent services right across Melbourne.
- Therefore, any funding application or allocation in the near term needs to provide for suburban rail extensions first, ahead of a cross-city rail tunnel.

Efforts by operators and planners to increase peak hour train numbers must pay heed to the full range of issues identified in the *Transport Supply and Demand* report, to ensure that capacity in the existing network is used effectively. In particular, operation of the City Loop should be thoroughly reviewed to reflect the way its planners intended it to be operated. The operational changes to take effect in November 2008 are going in the right direction but are only a first step.

We also believe that insufficient attention was given in the EWLNA to rail capacity constraints in the suburbs. The PTUA has long taken the view, based on international best practice, that the principal constraints in this regard are the remaining single-track sections in the network, including within the EWLNA study area. Wherever possible, planning should be undertaken toward duplicating these sections, to allow a consistent standard of service across the entire metropolitan area. As a step toward more comprehensive capacity planning for the entire network, our report *Getting Melbourne's Rail System on Track* (PTUA 2007b) recommended a thorough review of capacity issues by an independent and internationally-recognised expert on rail operations.

Network capacity planning must also consider capacity for access to railway stations. While there is a limited role for park & ride, only fast, frequent and well-integrated feeder buses can provide the bulk of this capacity effectively (see item 9). The alternative is to build car parking capacity which currently costs an average of $17,000 per additional passenger.

## 2. Tarneit line

While the PTUA applauds the concept of providing quality public transport links before suburbs are fully settled, a number of questions surround the specifics of the proposed Tarneit rail line, and while there are good reasons for supporting this line or something like it, those reasons are not clearly provided in the EWLNA and its supporting documentation.

The first concern is that the proposed route runs along the edge of the urban growth boundary, meaning it will have only half the catchment of a normal rail line. The idea of envisaging high-intensity activity centres directly adjacent to green wedge land is questionable, and this appears to make little sense in terms of urban design.

There is also insufficient detail about the proposed Tarneit line in the EWLNA to fully evaluate its usefulness for Geelong line or local suburban trains (compared, for example, with the detail supplied for the proposed cross-city road tunnel). More detail is needed about how both types of services on the line might actually operate together, both in the short and long term.

While a route by which Geelong line trains bypass Werribee, Laverton and Newport in order to avoid suburban congestion has some initial attractions, the fact that the same line will provide a suburban service for the Wyndham Vale and Tarneit area creates an obvious danger in that in trying to perform both functions, the route will do neither of them well.

As a path for Geelong line services to and from Melbourne, the relatively indirect Tarneit route would have to allow for trains running at a consistent speed of 130 km/h to maintain current schedules. It is unclear how this could be achieved if Geelong line trains are to share the planned double-line track with other trains maintaining a reasonably frequent service to the suburban stations on the line.

It is also unclear how many stations that suburban service will involve. The map on page 39 of the Public Transport Division *Analysis on Rail Capacity* shows five stations on the Tarneit line itself, as well as a station at Deer Park. There presumably must also be a station at West Werribee (although it is not shown on the page 39 map). Presumably this is the ultimate number of stations, although it is not made clear what would be provided in the short, medium or long term.

Evaluation of the idea is also hampered by the fact that (as alluded to above) the map on page 39 and the diagram on page 40 of the same document are inconsistent as far as the configuration of the Tarneit line is concerned. The map on page 39 does not show a station at West Werribee at all, and has a very sharp curve at the Geelong line junction which would take trains directly to Werribee station itself. However the diagram on page 40 shows a West Werribee station (as two island platforms) but with no curve towards Werribee. What is actually proposed?

As far as its suburban function is concerned, the proposed route seems to assume that most journeys in that area, for whatever purpose, will be to and from central Melbourne. This route seems to ignore the need for rail services to pass through major centres in order to facilitate access to those centres, as well as transfers to other transport routes and modes. By-passing major centres and current transfer points, such as Werribee, Laverton and Newport, reduces the usefulness of any public transport provision, and limits potential patronage.

Werribee is the likely travel destination for many people living in the Tarneit area, especially at its southern (Wyndham Vale) end, but the Tarneit line will bypass Werribee and require passengers to travel south to West Werribee station (assuming it is provided) and then change to a train taking them north one extra station to Werribee.

It has been alleged that one of the unstated reasons for the proposed Tarneit line is that it can be constructed on undeveloped land. While the potential costs of land acquisition in the construction of any line obviously must be taken into account, this clearly cannot be the primary factor in planning public transport provision, if it to serve any useful purpose.

The fact that "the delivery of the Tarneit line … would provide little benefit without the CBD tunnel" (*Analysis on Rail Capacity* page 42) introduces significant inflexibility, given that it appears to make any benefits dependent on other contingencies falling into place.

We conclude that the Tarneit line as currently proposed cannot meet community needs, and should not proceed in its proposed form. However, the basic idea of providing high-quality public transport services to major new growth areas is sound and should be supported. It is our view that a Tarneit railway will only function effectively as an electric suburban line, with a direct connection to the Werribee activity centre that penetrates the growth area rather than running along the periphery.

It has also not been clearly demonstrated that there is a need to divert all Geelong services to run via Sunshine, particularly given that Werribee is a popular destination for Geelong travellers.

From a broader land-use point of view, there are alternative options that also might be considered, such as developing the Melton corridor from Caroline Springs to Rockbank and Melton, including land both north and south of the existing railway line. After duplication and electrification, the railway would become a western equivalent of the Pakenham line. Green wedges further to the north and south could then be maintained.

## *3. Better use of existing network, including Sunbury electrification*

The PTUA fully supports the electrification of the Sunbury rail line, and has done so since at least 1991 (PTUA 1991). It is an effective way to make better use of train paths and deliver higher service levels to a neglected area within the urban growth boundary, and is an essential step toward establishing the fast, frequent services that are required to generate substantial mode shift to public transport in this corridor.

While there has been concern from the local community at a perceived reduction in service quality, the past electrification projects to Craigieburn and Sydenham have resulted in higher-

frequency services which have been shown to be much more attractive to passengers than the more limited-hours, mostly infrequent V/Line services.

We also strongly support measures to make better use of the existing network, a number of which were identified by SKM Maunsell in their report for the Study.

Measures to be considered should include:

- More trains to operate direct to Flinders Street / Southern Cross, including through-routing between east and west (see also item 1)
- Driver changeovers moved from Flinders Street to outer suburban termini, to maximise CBD platform throughput
- Reinstate platform 11 at Flinders Street, and use to terminate Gippsland trains
- Build platforms 15+16 at Southern Cross
- Platform staff at all major stations (or other locations where dwell times are a concern) to help with wheelchairs, and train departure
- All stations staffed first to last train. Staff to have minimum medical training to be able to deal with non-serious cases of sick passengers while waiting for ambulance
- Duplicate remaining single line track sections: Altona Loop, Upfield, Epping, Hurstbridge, Lilydale, Belgrave, and Dandenong to Cranbourne, to ensure delays are not compounded and timetabling is not unnecessarily constrained (see also item 1)
- Relax performance regime if a minimum frequency of 5 minutes (to all stations) is maintained. At peak times, the frequency of trains is more important than whether they get to their destination precisely on time
- Boosts to off-peak, evening and weekend services to better spread the peak load across the day and evening
- Bringing antiquated signalling and control systems up to 21st century standards, including consideration of technologies such as Positive Train Control

See also section C, for the PTUA's proposal for service upgrades and network extensions.

## *4. East-west road tunnel*

The PTUA strongly opposes the cross-city road tunnel. Not only is it an inappropriate response to Melbourne's transport needs in the light of actual travel demand, climate change and oil supply threats: the EWLNA itself confirms that it would be a colossal waste of money even assuming the relatively low fuel and carbon prices adopted by the Study.

Cost-benefit analyses for the major projects in the EWLNA were conducted by economic consultants Meyrick and Associates. Their evaluation considered two packages of projects: one combined package of all proposed road and rail projects, and one containing only the public transport components. There was no separate evaluation of the road project alone: however, we agree with transport academic Paul Mees that subtracting the values for the 'public transport' package from those for the 'combined' package provides a reasonable estimate of the values for the cross-city road tunnel.

Using a conventional cost-benefit analysis, the estimated benefits of the combined package are $11.1 billion while the benefits of the public transport package are $7.9 billion; accordingly the benefits of the cross-city tunnel may be inferred as $3.2 billion. The estimated cost of the road tunnel may likewise be calculated as $7.1 billion, giving a conventional benefit-cost ratio (BCR) of 0.45 (which is about half of the BCR commonly ascribed to the Doncaster rail proposal based on overinflated costings). So, on a conventional analysis the cross-city tunnel would be worth less than half the money spent on it, and a vastly inferior alternative to building a railway line to Doncaster East.

To the results of the conventional analysis, Meyrick has added some 'wider economic benefits', following the methodology established in Sir Rod Eddington's report to the British Government on the UK's transport needs. The reality of these 'wider economic benefits' is debatable, but in any case they increase the benefits of the combined package to $14.4 billion and the benefits of the public transport package to $9.2 billion. So even with these 'wider economic benefits' the benefit of the road tunnel is just $5.2 billion and the BCR is 0.73, which falls far short of breaking even, let alone generating a net economic benefit beyond that of just putting the money in the bank.

It appears that to justify the cross-city road tunnel economically, the EWLNA has had to resort to inflating these benefits even further, with $6 billion of 'further benefits' that have not been endorsed by Meyrick. Apparently, most of this additional $6 billion is "an indication of the possible additional construction cost over and above what might be incurred to deliver a similar project with minimal tunnelling" (EWLNA, p.235). This appears to be an attempt to shift the baseline of the entire cost-benefit analysis, comparing the proposed cross-city tunnel not with the status quo, but with a completely hypothetical 'minimal tunnelling' option inferior to the status quo. It in no way averts the conclusion that, even by the generous standards of ordinary cost-benefit analysis for road projects, the cross-city tunnel leaves the Victorian economy worse off, not better off.

The entire case made for the cross-city road tunnel in the EWLNA is an instance of what Britain's Royal Commission on Environmental Pollution in the 1990s called the 'predict and provide' approach to planning: road planners *predict* increases in traffic, and *provide* the roads to cater for it. The EWLNA's suggestion is that there is a high level of 'latent demand', where more people *want* to travel across the city from east to west but are thwarted by 'inadequate' road provision. Even if this were true, it does not follow that more road construction is warranted. One can similarly say that many people in Australia *want* to travel to Europe more often but are thwarted by high travel costs: therefore Australian governments should levy increased property rates to subsidise the international airline industry. The EWLNA supporting documents themselves establish that even if some would benefit from the cross-city road tunnel, it is nonetheless a waste of money since the costs exceed the identifiable benefits.

The report also includes a number of flawed assumptions or omissions in its support for the road tunnel. Amongst these are:

- No consideration of climate change issues. While transport the fastest growing contributor to greenhouse gas emissions, the study team has apparently ignored this, anticipating continuing growth in traffic and no increase in public transport mode share, in direct contradiction of the Government's 20% by 2020 goal. The cost of $10 per tonne of CO2 which was adopted by the Study is a gross under-estimate in light of emerging science on the seriousness and speed of climate change.

- The report claims it is a 'myth' that most Eastern Freeway traffic is headed for the inner city (p129). It is further claimed that the results of the Northern Central City Corridor Study produce "a distorted view of traffic distribution". Yet the NCCCS results are based on actual origin-destination surveys, while the alternative results presented in Figure 70 of the EWLNA report are based on a computer model. Further, the model results in Figure 70 suggest the absurd conclusion that 1 in 8 vehicles that come off the Eastern Freeway proceed to rat-run up Scotchmer Street in North Fitzroy on the way to Citylink. Not only is this directly contradicted by the select link analysis in Figure 64; it is inconsistent with the observed behaviour of traffic in Alexandra Parade and in Scotchmer Street. (In fact it is not even possible to turn right from Alexandra Parade into Gold Street in Clifton Hill, as the model suggests 8% of traffic is doing.) Clearly the model used has not been calibrated so as to reproduce real-world behaviour. And again, there is the suggestion that even if most Eastern Freeway traffic doesn't head

west, it nonetheless wants to do so - or at least that there are 'unmade journeys' that would become possible if new road links are created. We do not doubt that building new roads induces new traffic, but the deliberate creation of entirely new road traffic is not the proper objective of sustainable transport policy. Figure 71 on page 131 of the report further demonstrates that the majority of Eastern Freeway traffic is heading to the CBD and surrounds. The provision of a fast, frequent, well-integrated public transport network would also allow journeys to beyond central Melbourne to be made by public transport.

- The report nonetheless appears to want to argue that the 'select link' analyses presented from page 119 onwards constitute evidence of demand for a major new east-west road connection. Yet the select link diagrams quite clearly show a focus on 'tidal' flows into the city centre, with only a minority of traffic continuing across the city, whether north-south or east-west. One may note also the gradual changes in the width of the lines as one moves along them, indicating a large number of local journeys in addition to the centrally-focussed ones.

- The select link analysis of Brunswick Road, in particular, is presented as being central to the argument for an east-west road tunnel. Here, the report has simply misconstrued the nature of select link analysis. All this analysis does in this case is chart the routes taken by all traffic that passes a particular point on Brunswick Road. We see from Figures 63 and 64 that a large proportion of this traffic goes to or from Citylink and Moonee Valley, and a similarly large proportion goes to or from the Eastern Freeway. What it does not show is that there is a huge volume of traffic traversing the entire diagram, starting at the Eastern Freeway and rat-running through North Fitzroy and Brunswick to access Citylink, or vice versa. Indeed the results shown are entirely consistent with the hypothesis that nearly all this traffic is local in origin, and constitutes the normal travel behaviour of Brunswick, North Carlton and North Fitzroy residents themselves as they travel to and from points outside their home suburb. As the road tunnel is not intended to cater for this local traffic, the select link analysis actually demonstrates an absence of demand for the road tunnel - the opposite conclusion to that reached in the report. Note too that the total traffic volume of approximately 20,000 vehicles per day in both directions is insignificant relative to total flows on Citylink and the Eastern Freeway, as is readily seen from Figures 58 to 61 (all of which depict one-way flows only). What we see here is a new instance of the old argument, used prominently in the 1998 Scoresby Freeway Environment Effects Statement, that the large traffic volumes on roads like Springvale Road indicate a big demand for long-distance north-south travel, when in fact most of it is local in nature.

- While the report highlights that the Eastern Freeway comes to "an abrupt halt at Hoddle Street" (p124) and uses this point to argue that the road tunnel is a logical continuation, in fact the Eastern Freeway terminates at this point because it was deliberately built this way. Construction of the freeway did not begin until the late 1970s, when it was already known that a link further west had been ruled out by the Hamer Government. Many other cities have freeways that terminate short of their centres, and use this in a positive way to meter the flow of traffic into the central area to prevent inner suburbs becoming choked with cars and trucks. (Indeed, a statement by Premier Hamer in the Melbourne Times on 14 December 1977 suggests that such traffic metering was part of the original plan for the freeway; it seems to have since dissipated.)

- While the EWLNA (p 208) appears to rely on ABARE oil consumption forecasts and presumably uses these in modelling, ABARE themselves have acknowledged (ABARE, 2008) the limitations of their projections, and note their continued under-estimation of future oil prices.

- The EWLNA attempts to discount induced traffic (p 283) by claiming most increased traffic is changes to existing trips -- but admits some of this will be changes in destination (which might be driving further because it's easier). By denying induced traffic, the report contradicts implications running right through Chapter 5 that the purpose of building the cross-city tunnel is explicitly to release latent demand for new east-west travel! The report also attempts to assert that additional travel due to land use change is not 'induced travel': whether it is called that or not, it is usually considered an observable and undesirable consequence of road building.

Our overall conclusion is that the road tunnel is economically counterproductive, environmentally destructive and a waste of money, and is only made to appear defensible in the EWLNA as a result of flawed assumptions and misconstrued evidence. It should be rejected outright.

## *5. Truck Action Plan*

The PTUA has long supported efforts to get heavy truck traffic off suburban streets. Establishing preferred truck routes away from residential areas will help in improving air quality and amenity for residents in the inner-west and this element of the EWLNA is commended.

However, we agree with the Maribyrnong Truck Action Group that the proposal for widening Ballarat Road, effectively turning it into a 'truck sewer', makes no sense. Ballarat Road does not need to become a major freight route when Geelong Road (which is under-utilised) and the West Gate Freeway are available as alternatives. Ballarat Road is largely residential, as is Ashley Street which would also become a major truck route under the EWLNA proposal, and moving the trucks would simply be moving the 'problem' from one residential area to another, with road-widening resulting in the demolition of dozens of houses, and impacting heritage elm trees.

Likewise, the proposal for a new road link from Lynches Bridge (Ballarat Road) to Dynon Road cannot be supported. This would destroy Newells Paddock reserve and local amenity and is not justified by likely freight movement patterns.

Apart from minor road changes to move trucks off residential streets, more effort needs to be put into moving freight from road onto rail. (See items 10 and 11 and Part D.)

## *6. Doncaster Area Rapid Transit (DART) bus upgrades, and an overdue train line*

While the upgrading of bus services under DART would represent an improvement on the current overcrowded services, it is an inadequate response to transport needs in a corridor that requires substantial growth in patronage to match otherwise comparable municipalities that do have rail services.

Analysis of the Doncaster rail option also appears to be flawed, with inflated cost estimates used compared to real-world experience in other jurisdictions, sub-optimal route design, and the failure to consider potential benefits for *both* passengers *and* rail freight evident on page 159 where it is stated that an Eastern Freeway-Eastlink alignment would be costly for "rail freight-only functionality". Arguments very similar to those found in this section of the EWLNA were used in the 1980s to advise against construction of the Perth Northern Suburbs rail line, but the line was built anyway and was soon carrying tens of thousands of people each day. Given the trends in public transport patronage and oil prices since 1991 when the Northern Suburbs line

opened, there is no reason to expect that a similar new line in Melbourne, in a region of similar population density to Perth's suburbs and lacking rail services, would not have the same or greater potential to attract journeys away from cars.

Page 79 specifically suggests that because there is a large population of people who drive long distances to railway stations, rail extensions are unlikely to increase patronage as they will simply attract people away from existing rail services. This ignores the fact revealed by Census data[1] that public transport in Melbourne is effectively a walk-on mode at present, that the car is a minority mode for access to stations, and that feeder buses have greater potential than Park & Ride for enlarging station catchments. In fact the main reason for people driving long distances to railway stations at present is to avoid paying high Zone 1+2 fares by driving to stations on the edge of Zone 1, something which could be reduced by adjusting the fare structure.

DART also fails to provide adequate and timely improvements to travel times since the report claims that "some DART priority measures cannot be implemented until the Eastern Freeway to CityLink connection is complete [around 2019]" (p.233). This contrasts with the rail option for which construction could begin almost immediately, especially the first stage to Bulleen which requires no tunnelling.

While the PTUA supports upgrades to the present overcrowded bus services in the short term, we are of the view that in the medium to longer term, passenger rail services must be provided along the Eastern Freeway and into East Doncaster to better serve this substantial area of Melbourne. The alignment followed should be substantially as recommended in the Russell Report in 1991: following the Eastern Freeway median as far as Bulleen, then in a single bored tunnel through Lower Templestowe, underneath Doncaster Hill, then roughly following Doncaster Road to a terminus near Blackburn Road.

As further evidence of the constrained nature of the Study, a BCR appears not to have been calculated for the option of heavy rail to Doncaster. We note however that the NCCCS calculated a BCR of 0.7 without the contribution of 'wider economic benefits' and 'further benefits' generously attributed to the proposed cross city motorway by the EWLNA Study. By comparison, the implied BCR for the cross-city road tunnel inclusive of 'wider economic benefits' is 0.73 - almost the same as for the Doncaster rail line excluding these wider benefits (see item 5). It appears almost self-evident that an updated analysis reflecting more realistic assumptions about future liquid fuel costs and availability as well as an appropriate price on carbon would confirm the viability of the heavy rail option to Doncaster and make a stronger economic case for the Doncaster train line than for the cross-city road tunnel.

The EWLNA's cost estimate of $1.5 to $2 billion for the Doncaster rail line is almost certainly an overestimate. Using the recently completed Mandurah line in Perth as a basis for costing the line as far as Bulleen, this section can be built for less than $100 million, including three stations at $10 million each. The tunnelling required from that point has not been subjected to a proper engineering assessment; however, cost estimates for the nearby Eastlink tunnels, as well as for busway tunnels recently constructed in Brisbane, sit at around $100 million per kilometre per bore. A double track railway is likely to require only a single bore, given the required width is less than that for a three-lane roadway, so a more realistic but conservative cost estimate is around $700 million for the line as far as Doncaster Hill (adding a bit for underground stations) and $1 billion to East Doncaster.

[1] Figures at http://www.ptua.org.au/myths/parkride.shtml

## 7. Upgrade cycling infrastructure

With increasing numbers of commuters looking towards cycling for some of their travel, proposals to upgrade cycling infrastructure are to be welcomed.

At present the Principal Bicycle Network (PBN), established in the early 1990s, is only about 35% complete and has not been designed to connect with railway stations. The PBN should be reviewed to improve connections, and properly funded to enable its completion.

Local feeder routes should be enhanced to better connect with the PBN and public transport interchanges.

## 8. Tram and bus priority

The PTUA strongly supports efforts to give trams and buses priority in traffic. This not only makes trips by public transport more time-competitive with driving, it also means better use of fleets, infrastructure and drivers, which translates into more services at the same cost.

It is estimated that providing full traffic priority for trams, removing all delays due to traffic, would effectively boost carrying capacity of the tram system by up to 30%, with no additional vehicles or drivers, providing more frequent services and relieving overcrowding. This would provide scope for significant growth in patronage in those parts of Melbourne covered by the tram network.

In providing proper priority for public transport, we are ensuring that available road space is used in the most efficient manner possible. Trams or buses that may be carrying dozens or even hundreds of people each should have priority over cars that on average carry 1.22 people each (VicRoads, 2006). If implemented effectively, the difference in travel time for motorists should be barely perceptible.

For priority to be effective, care must be taken with the specific measures to be implemented.

- Clearways do not have a clear benefit. A study undertaken in 2007 indicates the likely reduction time from clearways is between 5 and 10 per cent, compared to 15 to 35 per cent for traffic light priority. Implementing Clearways without simultaneously installing tram or bus lanes means that the total road space for motor vehicles is expanded, and this is likely to encourage additional traffic, which results in little long-term difference to tram and bus speeds. Clearways also provide no solution to trams getting stuck behind right-turning cars at intersections. On the other hand, clearways can have seriously detrimental impacts on local amenity and retail vitality (Sustrans 2003; Lautso 2004).
- The 2007 study concluded that the biggest cause of delays to trams is traffic lights (PTUA 2007c). Any priority scheme must address this by reducing or removing delays at traffic lights for trams and buses, preferably by using active priority to ensure an approaching tram or bus gets a green signal and does not have to stop.

A number of European cities, such as Zurich, have successfully implemented on-street priority for public transport, and could be consulted on implementation.

## 9. Park & Ride

Upgrades to Park and Ride facilities are of limited benefit. At a current average all-inclusive cost of some $17,000 per car space (Victorian Government, 2008) they are an extraordinarily expensive way to help get passengers onto public transport, and result in the wasteful use of valuable land around transport interchanges that should be developed in line with Transit

Oriented Development principles. (This places Recommendation 9 at odds with Recommendation 14.)

Large-scale parking harms the amenity of activity centres and can only deliver a significant proportion of passengers to mass transit if massive and expensive parking facilities are constructed, which diverts resources from a genuinely integrated public transport network.

More car parks does nothing to help deliver an integrated public transport network that can serve a greater proportion of non-CBD travel and reduce car dependence.

In light of considerations such as these, Park & Ride should not have privileged access to funding through a dedicated fund when there is a large backlog other public transport improvements to be addressed, many of which would also relieve pressure on station parking.

Better feeder buses into railway stations and other major interchanges, either running at high (every 10 minutes or better) frequencies or fully co-ordinated with connecting services, will provide more capacity for getting passengers onto the system, including after the morning peak, when parking facilities are generally full.

Bicycle parking facilities (which require much less space per 'vehicle') should also be improved along with safe local cycle routes leading to railway stations.

## *10. 30/2010 rail freight target*

The admirable goal of 30% of freight to and from Victorian ports by rail by 2010 should not be abandoned. Greater measures to actually achieve this shift should be undertaken, to ensure rail is competitive, and to ensure that freight is able to be cheaply and effectively moved into the future, when rising oil prices will become a threat.

The report correctly states that there is virtually no freight carried by rail within Melbourne at present, but fails to acknowledge that this is due to the closure of services such as the CRT shuttle service between the port and Altona, due to State and Federal Government policies that are widely understood to actively favour road freight and penalise rail freight. The most serious problem with rail freight is the lack of a level playing field in government policy, not the dearth of infrastructure (which is also an issue but being steady addressed through Auslink initiatives). It is unfortunate that the EWLNA focuses exclusively on the latter and ignores the former, making the failure of the 30% by 2010 target a foregone conclusion.

See Recommendation 11.

## *11. Increasing rail freight mode share*

The PTUA strongly supports the objectives of this recommendation. To increase the share of freight by rail is a vital part of cutting the need for road space, improving the carbon footprint of freight and transport overall and reducing the impact on residential areas of truck movements.

The proposed measures should also be part of a broader freight strategy that builds upon world's best practice and leading edge approaches to minimise road freight vehicle movements. This could also build on the Victorian Government's *Connect Freight* (formerly *Smart Freight*) strategy and consider innovations such as those described below (see 'Innovations in the freight industry').

## 12. Port of Melbourne responsibility for intermodal hub network

While the Port of Melbourne is certainly a key stakeholder, we have reservations about this proposal. A greater proportion of *non-port* freight (which is the majority of freight movements in Melbourne) should also be shifted to rail, and this objective may not be best served by placing a port authority in charge of intermodal hubs. We suggest the governance arrangements for intermodal hubs be considered in the context of a broader freight strategy and reflect the needs of all relevant stakeholders.

## 13. High productivity freight vehicles

There is some doubt about the projected increase in the metropolitan freight task (PTUA 2007a, pp.15-20).

The consideration of high productivity vehicles should take place in the context of a broader freight strategy designed to minimise road freight vehicle movements and impact on local amenity (see Part D).

## 14. Melbourne 2030

While the implementation of Melbourne 2030 has been troublesome, the overall objective of developing vibrant suburban centres with a mix of residential and commercial use, based around public transport interchanges, is to be supported.

## 15 & 16. Vehicle efficiency: the potential for technical fixes

While vehicle efficiency is clearly a component of a more sustainable transport system, the report seems overly optimistic about the potential for technology and alternative fuels to deliver emission reductions compared to Business As Usual.

Transport expert Patrick Moriarty has argued at length that we cannot rely primarily on such technical fixes to reduce the greenhouse gas (GHG) emissions from passenger transport. (See for example Moriarty, P: "The prospects for global green car mobility", *Journal of Cleaner Production*, vol. 20 (2007), p.1.) Put succinctly, there is no technology we can currently foresee that will reduce the emissions of passenger cars below about 110 grams CO2 per kilometre, with anything that looks or functions remotely like a car (as distinct from, say, a bicycle). This by itself is not a sufficient reduction in emissions to allow Australia to perform its fair share in stabilising global climate, even if it could be reproduced across all other sectors. The best hope in the long term for a green energy source for cars is renewable electricity; yet it is not feasible to expect substantial penetration of renewable energy sources in the stationary energy sector while at the same time burdening this sector further with the energy demands of car transport at anywhere near current levels of consumption. Hopes for 'green cars' also rely critically on such vehicles gaining acceptance in a marketplace that is currently enamoured of large four-wheel-drives, and it is unclear based on historical experience that any sustained success can be expected in this regard.

The only current credible scenario for making deep cuts in GHG emissions from passenger transport, given the current almost universal human desire for car ownership, is proceeding down the European path where car use is to a large degree decoupled from car ownership; that is, where the bulk of people own vehicles but moderate their use of them, doing most of their day to day travel by public transport, walking or cycling. In contrast to the current and historical situation with technical fixes, there is ample evidence for the efficacy of this alternative scenario. It does require, however, that Melburnians are provided with an alternative to car dependency, as described in Part C of this submission.

The inclusion of Recommendations 15 and 16 in the report is also inconsistent with the Study's assertion that GHG emissions are well beyond the scope of the EWLNA (p.182) and the consequent omission of any measures to achieve meaningful emissions reductions. It is therefore hard to escape the conclusion that these recommendations are greenwash to deflect attention from the inevitably negative environmental impacts of Business As Usual on road building.

Significant improvements in efficiency are also likely to be very costly and unaffordable to lower income households (McManus, G and Jean, P 2008). Alternatives to private motor cars will be needed to ensure affordable mobility.

## *17. AusLink*

- The decrepit nature of the state's rail network and lack of progress towards the Government's target of 30/2010 dictate that the focus of AusLink spending in Victoria should be the rail network, particularly ensuring seamless connectivity between freight centres and the interstate rail network and ensuring track is in adequate condition to allow competitive speeds. This implies standardisation of the broad gauge network and duplication of single track sections of line (or more generous provision of passing loops on lower volume regional corridors). Furthermore, rail freight and passenger rail should not be considered in isolation, but potential benefits to both tasks now and in the future recognised.

## *18. Funding from beneficiaries for rail tunnel*

The claimed justification for construction of the rail tunnel is to increase peak hour rail capacity. Therefore the main beneficiaries of such a project would be peak hour rail commuters from the southeast and western parts of Melbourne (though in fact, as mentioned elsewhere, increased peak hour capacity can come about through better use of the current infrastructure).

The proposal to force contributions from "public transport users and property owners across Melbourne" is therefore flawed. Only a small number of people in these groups would regularly travel during peak hour into the city centre, on the particular rail lines to be aligned with the tunnel. Others, such as residents of the northern and eastern suburbs would see no benefit.

Charging premium fares for use of particular stations (eg those in the tunnel) would also be flawed, shown by the experience of the Sydney airport rail line, where the extra fares charged have discouraged patronage, resulting in passenger numbers well below those originally forecast.

In addition, public transport fares in Melbourne already compare unfavourably with other cities in Australia and around the world (PTUA 2007d), and have risen faster than inflation since privatisation. To propose a further increase on fares to fund a tunnel, or any other public transport infrastructure, is unjustified.

## *19. Road tolling*

As the Study implicitly recognises by making this recommendation, road users do not fully pay their way and impose substantial costs on the rest of society, and pricing has an important demand management role as distinct from financing role. Even without counting congestion, we estimate that the unrecovered costs imposed by road users across Australia amount to at least $16 billion per annum (PTUA 2008a). Clearly any revenue from tolling or road pricing should be used to fund remedial activities such as healthcare and environmental restoration as well as to improve transport alternatives so that road use and the consequent social costs can be reduced.

What is also clear is that revenue should not be used to fund additional road capacity as this would induce additional traffic, thereby increasing downstream congestion and the social costs of road use: "road-pricing that funds additional highway capacity can increase total automobile travel through rebound effects and so may increase downstream traffic congestion, parking costs, crashes, pollution, and sprawl." (OECD 2006, p.73)

## *20. Statutory "corridor" authority*

An effective transport system - whether it be for roads or public transport - must effectively co-ordinate across the entire metropolitan area, not just along certain corridors. Public transport requires *inter alia* good service coverage and integration across Melbourne. These key success factors are best ensured if strategic and tactical planning is managed by a single public transport authority with the responsibility to integrate new services with existing services and in line with land use objectives.

# C. Our alternative proposal: Every 10 minutes to everywhere

The 20% by 2020 target is an achievable one, if the government puts the right kind of spending into public transport. Indeed, with petrol prices spiralling, higher mode share is achievable if frequent services are available.

Only a small proportion of people in greater Melbourne come into the CBD and inner-suburbs on a regular basis. Public transport mode share for this inner-area is already high (and, together with other non-car modes such as walking and cycling) can't get much higher. But mode share for trips in the rest of Melbourne is well below 10%, with the vast majority of trips being by car, including many trips that do not originate or conclude within the EWLNA study area, but do go through it. Providing more car drivers with other travel options would cut traffic volumes in the EWLNA corridor.

To make a real impact on mode share (and thus traffic congestion, petrol prices, and transport emissions), public transport needs to be upgraded to provide every suburb across Melbourne with a time-competitive alternative to driving, for most of their trips.

Public transport that provides genuine "walk up and go" convenience across the city does not need vast amounts of money to be spent on infrastructure - but it does require a big boost in service quality so that people will gladly leave the car at home.

**The cornerstone of this proposal is a network of services right across Melbourne, running at least every 10 minutes, 7-days-a-week, until midnight.**

## *Trams*

- Tram service upgrade: All tram routes upgraded to run at least every 10 minutes, 6am to midnight, 7-days-a-week (Following this, there would be further upgrades as driven by demand.) Requires no additional rolling stock, only driver availability and some extra electrical load.

- Strategic short tram extensions to improve connections between outer suburban rail services and inner-city trams:

- 75: Vermont Sth to Knox City
- 57: West Maribyrnong to East Keilor
- 48: North Balwyn to Doncaster Shoppingtown
- 109: to Box Hill Railway Station
- 8: Toorak to Hartwell
- 16: Kew to Kew Junction
- 72: Camberwell to North Kew and Ivanhoe Railway Station
- 72 South: Gardiner to Caulfield Railway Station
- 3: to East Malvern Railway Station and Chadstone
- 67: to Carnegie Railway Station
- 6: to Glen Iris Railway Station and Ashburton Railway Station
- 5: to Darling Station
- 82: from Footscray via Footscray Road to Docklands and the City

- Active tram priority on main routes, including St Kilda Road, Dandenong Road, Victoria Parade/Street, with the target of cutting travel times by 20-30%. (A PTUA study in 2007 showed a third of tram travel time is wasted - http://www.ptua.org.au/2007/09/27/dead-time-

tolls-trams/ ) Cost is in planning and software, not infrastructure, as we already have the systems in place to manage traffic lights intelligently.

- Rollout of low-floor trams, aiming for complete level or one-step access onto the tram system, and a 50% increase in peak capacity by 2020.

- Rollout of platform tram stops, aiming for every second stop providing level access onto trams by 2015, and all stops by 2020.

## *Buses*

- Smartbus network rollout: Every arterial road in Melbourne that doesn't have trams to have Smartbus services, running direct routes to/from rail stations/activity centres. Frequent service: at least every 10 minutes, 6am to midnight, 7-days-a-week. (Stage 2: Further upgrades in peak, and as driven by demand.) Service rollout does not necessarily immediately have to be accompanied by automated signage etc; this can come later. Will require some additional buses based on planned peak hour services, plus more drivers throughout the day. This is probably the largest element of the plan in operating expenditure, but is comparable in magnitude to myki.

- Bus priority on all arterial roads, including 24-hour bus/HOV lanes on major roads (6+ lane roads), jump start lanes at major intersections, traffic light priority. Involves minor infrastructure works, plus planning and software along the same lines as for tram priority.

- Continued rollout of low-floor buses, aiming for a complete fleet of wheelchair accessible buses by 2020.

- Neighbourhood bus services to fill gaps between arterial roads, to run at least every 30 minutes, 6am to midnight, 7-days-a-week, connecting to local stations, tram or Smartbus routes.

## *Trains*

- Train service boost: Every metropolitan station served by trains in each direction at least every 10 minutes, 6am to midnight, 7-days-a-week

- Train extensions and electrification to reach developed and developing suburbs which don't currently have rail coverage:

- South Morang and Mernda (following disused rail reservation)
- Sunbury (electrification, as per EWLNA)
- Cranbourne East (following disused rail reservation)
- Melton and Bacchus Marsh (electrify, and duplicate in stages)
- East Doncaster (see Part B, item 6)
- Monash University and Rowville (along Wellington Road median)
- Baxter (duplicate and electrify)

- Provision of stations at major traffic generators on existing lines:

- Southland shopping centre (Frankston line)
- Newport West, Derrimut and Forsyth Roads (Werribee line)
- Lyndhurst Park (Cranbourne line)
- Campbellfield (Upfield line)
- Pakenham Lakeside (Pakenham line)

- Duplication, upgrade of signalling and shakeup of train operations to ensure high frequency and reliability is achieved. See the details in the section responding to Proposal 3 of the EWLNA.

## *Other services*

- Nightrider network redesigned, to run at least half-hourly, 7-days-a-week, covering all tram, train and Smartbus routes

# D. Freight

The challenges of freight movement in cities are substantially similar to those of passenger movement. To treat freight transport and passenger transport as two separate problems is to ignore the fact that freight and passengers travel on the same networks, and that freight makes up about 10 per cent of all road traffic. Accordingly, the problems that face freight transport are problems for which passenger transport is largely responsible, and any solution to the challenges of passenger transport also flows through to freight transport as a matter of course. Conversely, any attempt to solve a 'freight' problem with a new road that is also available for use by passenger vehicles will result in the road being used mainly by passenger vehicles, with freight caught up in the traffic stream, reproducing the same problem as before.

It is also highly relevant to note that most freight in Melbourne travels outside peak times, when previous reports such as the Eastern Freeway Review by Bill Russell found that there is little interference to road freight. But when delays to freight occur and are attributable to the level of passenger traffic, the most cost-effective solution is the segregation of freight from other traffic, such as through dedicated truck lanes on freeways. It is disappointing that the EWLNA did not consider the potential for such measures in reducing the delays to freight that do occur in peak times.

Our original submission to the EWLNA expressed serious doubts about the robustness of projections regarding future freight volumes (PTUA 2007a, pp.15-20). These doubts were based on factors such as real freight rates and the impact of rising fuel costs (PTUA 2007a, pp.17-18). At the time our original submission was lodged, diesel cost around $1.20 per litre. In the 12 months since then it has risen to over $1.50 per litre and retailers are blaming rising freight charges for contributing to food price inflation (Coles Supermarkets 2008, pp.16-17; Woolworths 2008, p.8). More and more credible analysts are now predicting that oil prices will continue to rise, so we believe our original doubts are being borne out and much more modest assumptions about freight volumes should be adopted. The competitiveness of Victorian businesses now seems to be more closely tied than ever to fast, well-integrated rail freight networks.

> "[H]igh prices for liquid transport fuels ... will significantly increase the operating costs of road freight operators and will feed through into freight rates.
> ...
> With margins now quite low, it is possible that further tightening of margins would not be financially sustainable, thus restricting future reductions in real freight rates." (PTUA 2007a, pp.17-18)

> "The trucking industry's customers will have to pay higher freight rates to reflect the spiralling price of diesel, the Chairman of the Australian Trucking Association, Trevor Martyn, warned today.
> ...
> "The freight rate increases could be substantial, depending on the trucking company and its cost structure. Some companies haven't received a rate increase for the last eight months - they would need an increase of more than 10 per cent on average just to break even." (Australian Trucking Association 2008)

Regardless of freight volumes, we also believe there are many opportunities to shift given freight volumes with substantially fewer vehicle movements. Loading rates for freight vehicles ranging from light commercial vehicles through to articulated trucks are quite low in Melbourne (PTUA 2007a, pp.18-20), so there is significant potential to carry more freight without an increase in freight vehicle travel. The following examples demonstrate how greater supply chain

efficiency can be achieved without expanding high capacity road networks, saving large quantities of transport fuel in the process.

## *Innovation in the freight industry*

### CityCargo Amsterdam

In 2007 CityCargo undertook a pilot project investigating the feasibility of delivering freight into the heart of Amsterdam using trams. As the pilot was successful, it is proposed to expand the project to include about 40 cargotrams serving shops, supermarkets and the catering industry in Amsterdam. After CityCargo commences commercial operations in mid-2009 mainly utilising current tram infrastructure (plus sidings at transfer stations), it is hoped that trams will be able to replace around 2,500 truck movements each day, with each tram holding as much as four 7.5 tonne trucks.

It has been estimated that CityCargo will reduce air pollution by around 16% and result in less noise pollution and road wear.

Source: European Local Transport Information Service[2], Material Handling Management[3], CityCargo[4]

### Bristol Freight Consolidation Centre

In May 2004 a freight consolidation centre began operation in the English city of Bristol serving about 20 retailers. The centre is part of a scheme aimed at reducing the number of freight vehicles operating in the city and thereby reducing congestion, emissions and supply chain costs.

The scheme operates by consolidating deliveries for a range of destinations in the target area and thereby reducing vehicle movements. Since its inception, the scheme has grown to service around 60 retailers and reduced lorry movements by about 75% for participating retailers. More than 50% of the participating retailers are saving in excess of 20 minutes per delivery, and 94% would recommend the service to another retailer. Similar schemes are now being rolled out in London and Sheffield.

Source: START Project[5], CIVITAS[6], European Local Transport Information Service[7]

[2] http://www.eltis.org/study_sheet.phtml?study_id=1547&lang1=en

[3] http://www.mhmonline.com/nID/6202/MHM/pNum=1/viewStory.asp

[4] http://www.citycargo.nl/

[5] http://www.start-project.org/download/presentation/MINIHANE%20-%20Bristol.ppt

[6] http://www.civitas-initiative.net/measure_sheet.phtml?lan=en&id=57

[7] http://www.eltis.org/study_sheet.phtml?study_id=689&lang1=en

## Dresden CarGoTram

Since 2001 the Dresden Public Transport Company (DVB) has operated CarGoTrams providing Just In Time deliveries of components from the Dresden logistics centre to the Volkswagen automobile production factory near the centre of the city. The trams run on existing rail infrastructure built for passenger transport (with the addition of spurs to the logistics centre and factory) and each carry the equivalent of three semi-trailers.

*Source: Dresdner Verkehrsbetriebe (DVB) AG*

There is now also discussion about serving a planned city centre shopping mall of about 100 stores using CarGoTram.

Source: Dresdner Verkehrsbetriebe (DVB) AG[8], Wikipedia[9]

## Hammarby Sjöstad Logistics Centre

A logistics centre was created to service the redevelopment of the former harbour area at Hammarby Sjöstad in Stockholm, Sweden. In the absence of the logistics centre, the construction site would receive around 400 uncoordinated deliveries each day, including many small deliveries.

The logistics centre offers three main services:

- Co-transportation of goods,
- Temporary material storage, and
- Smart traffic guidance systems.

The centre has been successful in reducing the number of small deliveries to the site by 80%, and in the process reduced congestion, emissions, theft, losses and materials damage.

Source: CIVITAS[10]

## Sustainable Distribution Initiative

Under the umbrella of the UK food industry's Efficient Consumer Response (ECR) programme, 37 British food and consumer good companies announced in June 2008 a Sustainable Distribution Initiative which is expected to reduce travel by 48 million miles by the end of 2008 and conserve 23 million litres of diesel fuel each year.

[8] http://dvb.de/untnehm/gbahn.htm

[9] http://en.wikipedia.org/wiki/CarGoTram

[10] http://www.civitas-initiative.net/measure_sheet.phtml?language=en&id=392

The initiative includes sharing vehicles and more efficient warehousing among some of the nation's largest retailers and food suppliers such as Coca Cola, Kelloggs, Sainsbury's, Nestle and Unilever. The findings of the initiative are expected to be shared among companies of all sizes to encourage improved supply chain efficiency across the industry.

Source: IGD[11], Daily Telegraph[12]

[11] http://www.igd.com/CIR.asp?menuid=9&cirid=2785

[12] http://www.telegraph.co.uk/money/main.jhtml?xml=/money/2008/06/18/cnsustain118.xml&DCMP=EMC-mcn_18062008

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