Submission in response to *Transport for Canberra*

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November 2011

Introduction: wrong way, go back

The *Transport for Canberra* plan is fundamentally flawed, because it perpetuates the policy mistakes that have seen public transport in Canberra decline at record rates over the last 20 years. Two decades ago, Canberra had Australia's equal-second-highest rate of overall public transport use (behind Sydney, level with Melbourne and ahead of Brisbane). The public transport share for work trips was higher than in Perth and poised to overtake Adelaide. Since then, overall usage rates have fallen by half, public transport's share of work trips has dropped by a quarter, total subsidies have increased by nearly two-thirds (in real terms), and subsidies per passenger have more than doubled. Canberra now has the second-lowest (after Hobart) overall usage rate and work trip share for public transport among the seven State/Federal capital cities.

This result can only be described as a disaster. Canberra was once a national leader in public transport, but has gone dramatically backwards on every measure of performance during a period when things have improved across the rest of Australia. This has occurred despite the insistence by a succession of ACT governments that their intention has been to improve public transport's market share and cost-effectiveness, and despite strong public support for a more sustainable transport system.

A result this bad should call for a fundamental re-assessment of the policy directions that have produced the opposite outcome to that intended by the government and community. Instead, *Transport for Canberra* ignores the decline, fails to ask what has caused it, and proposes a continuation of the same policies that produced the decline in the first place. It relies on a series of unsubstantiated assertions about the reasons for Canberra's poor public transport performance that can be shown to be fallacious simply by considering the historical evidence.

Principal among these myths is that Canberra's problem is low population densities. The report fails to explain why even lower densities in the 1980s did not prevent ACTION achieving usage rates twice as high as current levels, with substantially lower subsidies. Despite the lack of supporting evidence – or more precisely, despite the fact that the evidence flatly contradicts it – the 'density myth' provides the basis for proposing that the great majority of Canberrans will be provided with low-quality 'coverage' bus services for the 20-year life of the plan. A select minority will be served by a 'frequent network', which provides comparable service levels to those enjoyed across the <u>whole</u> of Canberra in the 1980s.

The failure to analyse and learn from history is starkly illustrated by the issue of service integration. *Transport for Canberra* fails to acknowledge the importance of an integrated public transport network, and the critical role played by network dis-integration in the decline of ACTION. This can be seen in Table 4 (p. 28), which shows wait times for connections between local ('coverage') and intertown ('frequent') services. Until the early 1990s, ACTION's synchronised timetables

guaranteed a maximum waiting time of 4-5 minutes for transfers from intertown to local services [for an example, see the appendix]; *Transport for Canberra* proposes an average waiting time of 15 minutes for such transfers in 2013, reducing to 10 minutes in 2016. So the average waiting time for a connection to a local service in 2016 will still be twice as long as the maximum waiting time in 1991 – and this is presented in a way that implies passengers should be grateful for the 'improvement'!

How Canberra became a national leader in public transport

Half a century ago, Canberra was the most car-dominated city in Australia, with only 66 public transport trips per capita in 1961 (financial year ending 30 June): by contrast, the figure in Melbourne was 222 trips, and in Brisbane 232. Canberra's planners intended this situation to continue: the Canberra Area Transportation Study of 1963 treated public transport as an afterthought, simply assuming that it could operate on the freeway network planned for the car-driving majority (see *Canberra: Myths and Models*, by Karl Fischer, 1984).

The mid-1960s saw increased interest in the idea of a 'balanced' transport system incorporating public transport as well as freeways, and this approach informed the 1967 Canberra Land Use and Transport Study which led to the 'Y-Plan' outlined in the 1970 Tomorrow's Canberra report. The Y-Plan included a 'rapid transit system' – in the form of a busway linking the planned town centres to Civic and one another – as well as a freeway network. In the meantime, public transport continued to decline. Although patronage increased throughout the 1960s, contrasting with rapid declines in other Australian cities, the rate of increase was slower than population growth: per capita tripmaking fell to 52 in 1971 before reaching an all-time low of 48 in 1973 (figures from Australian Yearbook and annual reports of ACTION and its predecessors).

The key event that changed Canberra's public transport was the election of the Whitlam Government in 1972. Within a year, the Department of the Interior, which provided Canberra's bus services, was replaced by the Department of Territories, which included an enhanced division responsible for Canberra's public transport. From late 1973 substantial increases in funding were provided to upgrade services: this funding continued under the Fraser government. In parallel with these changes, the Whitlam government forced the NCDC and the Department to agree on a new transport policy for Canberra, which stated that roads would be planned to provide uncongested off-peak and freight travel, but that peak hour passengers would be encouraged to use public transport.

The Department's bus division, which from 1977 adopted the brand name ACTION, moved quickly to upgrade services, and achieved a rapid and dramatic reversal of previous declines. Patronage tripled from 8.4 to 24.0 million in the 12 years from 1973 to 1985, and per capita usage rates doubled from 48 annual trips to 96. In the three years to 1976 alone, patronage increased 73 per cent, from 8.4 to 14.5 million. These increases are among the most dramatic recorded anywhere in the developed world, and saw Canberra draw level with Melbourne as the second-highest user of public transport nationally after Sydney. The 1985 usage rate exceeded Melbourne's figure of 95, and the Brisbane rate of 75; Canberra's usage rates tracked Melbourne's and substantially exceeded Brisbane's until the early 1990s.

The subsidies required by the Department were modest by comparison with those of today. The TAMS 2010-11 Annual Report gives total subsidies for ACTION of $98.4 million, or around $5.80 for each of the year's 17 million passengers (boardings). The 1983-84 subsidy was $38.7 million (in 2011 dollars), or $1.67 for each of the 23.2 million passengers; the 1989-90 figures were $60.4 million, and $2.42 (25.1 million passengers).

How did ACTION manage to increase patronage so dramatically while keeping subsidy levels far below those of today? The approach was to provide a package of service innovations that were unique in Australia:

• High service levels on local routes covering the whole of Canberra: 15-minute minimum frequencies in peaks and peak 'shoulders' (e.g. until 7 pm); 30 minute services during shopping hours (including Saturday mornings); hourly services only at times when shops closed.

• High-frequency, high speed, reliable intertown express services, operated with high capacity articulated buses; in peak periods intertown services supplemented by direct express links from interchanges to employment centres such as Barton and Campbell Park.

• Synchronisation of timetables at interchanges, with guaranteed connections; maximum wait times 4-5 minutes; each local timetable shows times of connecting intertown services [see example shown in appendix]; supervisors at interchanges hold local buses if intertown services running late.

• Modern, clean, comfortable, well-maintained vehicles and interchanges, with supervisory staff present at all times to ensure connections and passenger safety.

• A stable, easy-to-understand network structure throughout the day and week; peak-only services minimised; no separate weekend network.

• A simple, low-tech fare and ticketing system with strong emphasis on discounted periodical and pre-purchased tickets, to build customer loyalty and speed bus boarding.

• Little reliance on park-and-ride or 'expresso'-style services direct from residential areas to central Canberra; primary access to express services provided by local feeders.

ACTION presented passengers with a trade-off. A high rate of interchanging (made more convenient by synchronised timetables and purpose-built facilities) enabled ACTION to minimise the number of different routes and the cost of operating the busiest services (through high speeds and use of articulated buses). This in turn enabled higher frequencies, speeds and reliability, together with connections to more destinations, than ACTION could have offered under a conventional direct routing system.

The evidence from patronage figures and census data for travel to work (collected from 1976 onwards and summarised in *Travel to Work in Australian Capital Cities, 1976 to 2006*, by P. Mees, J. Stone and E. Sorupia, 2007) shows that passengers were prepared to accept the trade-off. This enabled ACTION to provide a high level of service across the whole of Canberra, something that was not the case in any other Australian city: for example, until recently, fewer than half of Melbourne residents lived within walking distance of a public transport service that operated at all on Sundays. It also enabled ACTION to serve a wide range of trip purposes: non-central trips as well as trips to Civic; non-work as well as work trips.

How Canberra's road planners undermined public transport

By the early 1980s, Canberra's population growth had slowed from the very high levels of the 1960s and 1970s. Funds were becoming tighter, a situation exacerbated by the granting of self-government in 1988. At this point, a fundamental truth of urban transport planning began to assert itself. As Professor Vukan Vuchic of the University of Pennsylvania puts it:

> Investments in both modes [produces] greater attractiveness of both transit travel and driving. The relationship of the two modes remains unbalanced, however, which continues to be true unless an extremely large investment is made in transit to "catch up" with the lowered disutility of driving. The overall situation results in greater subsidies for both modes (*Transportation for Livable Cities*, 1999, p. 243).

Public transport made up ground from 1973 to 1985 through substantial investment which enabled it to win market share against an expanding road system. In the process, it had debunked the myth that Canberra's relatively low population density is a barrier to effective public transport. Having proven itself in this difficult environment, ACTION was now ready to take priority over new road investment in funding decisions – in other words, to move from being an Australian leader in service provision to being a world leader. This would have involved similar measures to those adopted in Ottawa (see below): extending the 15-minute peak/shoulder service frequency to operate all day and starting work on the busway system. The Belconnen interchange, which opened in 1979, incorporated a short section of busway (the busway was closed last year).

This redirection of priorities had been anticipated by the Whitlam government, which directed the NCDC to commission a transport study to support the new transport policy of 1974. The study reported in 1977, and proposed that public transport be given priority over road development. It supported this recommendation with modelling that assessed a 'demand management' policy comprising improved public transport, traffic congestion in peak period and pricing of car parking. The results, which were estimates for 1982 and did not include walking or cycling, are shown on the next page.

The NCDC was a reluctant convert to the new transport policy, however, partly because the policy favoured the Department of Territories, which operated public transport, over the NCDC, which built roads (and some public transport infrastructure). The NCDC's 1984 Y-Plan update *Metropolitan Canberra: Policy*

Plan, Development Plan relied on the travel survey carried out for the 1977 report, but directly contradicted both the report's recommendations (which it did not mention), and the central thrust of the 1974 transport policy (which it claimed to support):

• "During the next twenty years, it is expected that the public transport system will cater for about the same proportion of the total transport demand as it presently does" (p. 134).

• "The evaluation of the road system… was based on peak-hour travel demands… As traffic congestion is not expected to occur over most of the network between the peaks, travel demands at this time of the day were not considered in the evaluation of road needs" (pp. 123-4).

Mode splits with and without Travel Demand Management (TDM)

	Without TDM (%)		With TDM (%)	
Destination	Bus	Car	Bus	Car
Civic	16	83	48	52
Belconnen	17	84	41	60
Woden	16	84	39	62
Canberra total	14	86	33	67

Source: *Canberra Short Term Transport Planning Study*, Pak-Poy & Associates Pty. Ltd./ John Paterson Urban Systems Pty. Ltd., 1977, tables 5.21-5.25.

The NCDC's 1984 policy retained the freeways from the earlier Y-Plan, but dropped the intertown public transport system. The NCDC never mentioned the recommendations of the 1977 study, simply asserting that public transport usage would remain at the levels found in the survey conducted for that study in 1975. But in fact, by 1984, ACTION had already raised its usage rate to 95 trips per capita, 50% higher than the 63 per capita trips recorded in 1975. Unfortunately, the NCDC's pro-road bias has continued to dominate ACT transport policy ever since, under governments of all persuasions. The road proposals in *Transport for Canberra* mirror those in the 1984 NCDC plan, and the policy's bias in favour of roads is more extreme than in any of Australia's state capitals.

How ACTION's usage rates halved while subsidies doubled

While the NCDC's road policies transferred seamlessly to the ACT following self-government, the innovative public transport operating culture established by the Department of Territories did not. Per capita bus patronage reached an all-time high in 1985, the year after the release of the NCDC's Y-Plan update, then began to stagnate; however, it remained as high as 92 trips per capita in 1990. ACTION came under increasing pressure to cut costs, and made the first cuts to services in 1988. The timetable reproduced in the appendix, which dates from 1992, shows evidence of these cuts: buses previously departed Woden every 15 minutes from 3:40 to 7:10 pm, rising to 10 minutes between 4:25 and 5:55; however, departures at 4:35, 5:35, 6:40, 6:55 and 7:10 pm have all been cut, disrupting the basic pattern.

Territory self-government increased the pressure for cost reductions, and the years following 1992 saw a vicious cycle of service cuts and patronage decline. Off-peak

services were cut first, with Saturday frequencies halved to hourly by 1994, but peak frequencies were also reduced. Network restructures saw relatively simple, direct, comprehensible routes replaced by slow, convoluted, confusing loops and winding routes, especially in the evening and on weekends, when a completely different network operated.

Equally significant was the breakdown in the timetable synchronisation which underpinned the entire ACTION network. This began around 1994, when the times of connecting intertown services were dropped from local route timetables: passengers were supposed to guess which connecting service to take. This was followed by the removal of the interchange staff who ensured connections when express services ran late, and finally by the complete elimination of timetabled connections, with local and intertown services operating through interchanges as if the other services did not exist. Because service frequencies on local services had been cut substantially, even in peak period, waiting time ballooned in only a few years from a guaranteed maximum of 4-5 minutes to a random pattern in which waits could be half an hour or even more. These longer waits were spent, often after dark, at interchanges from which supervisory staff had been withdrawn, and at which standards of cleanliness and maintenance deteriorated steadily.

Hardly surprisingly, patronage collapsed, dropping from 25 million in 1990 to 17 million in 1998; per capita usage fell from 92 trips to 55. The loss of revenue more than outweighed cost savings from service reductions. The ACT government responded by commissioning a report from Mr. Roger Graham, a consultant with experience working for private bus operators in Sydney. It is unclear whether Graham was aware of the dramatic patronage decline that had preceded his engagement; if he was, he ignored it. Graham received many complaints about the long and uncertain waiting times at interchanges arising from the breakdown of synchronised timetabling, but instead of proposing that synchronisation be restored, his report recommended abolition of the interchange system in favour of an operating model similar to that used by private bus companies in Australia (which traditionally provided lower service levels, and achieved much lower usage rates, than ACTION).

Around the same time, a lengthy industrial dispute culminated in a new enterprise agreement under which ACTION workers agreed to productivity increases that would enable increased services to be provided. ACTION introduced a new ‘Network 99’ based on the Graham recommendations, predicting that ‘the new network structure will increase service levels and… the increased service levels will increase patronage’ (ACTION’s Bus Fares for 1999/2000: Final Price Direction, ACT Independent Pricing and Regulatory Commission, 1999, p. 6). The prediction was wrong: patronage fell to 16 million in 2000 and 15.6 million in 2001, by which time per capita trip-making had dropped to 49, the lowest figure since 1973. The share of trips to work had fallen to 6.7 per cent, a third lower than in 1991.

Why did the restructured network lead to a further reduction in patronage instead of an increase? Basically, because the Graham recommendations were based on a failure to understand the factors that had made ACTION’s service model successful in the previous decade. Network 99 increased the total number of bus-hours run, but did not increase the effective level of service to passengers, because most of the extra ‘service’ was wasted.

The new network was based on 'through routing' from residential areas onto the intertown corridor: for example, a bus might run from Fraser in Belconnen to Banks in Tuggeranong, via the interchanges at Belconnen, Civic, Woden and Tuggeranong. Through-running meant that articulated buses could no longer be used on the intertown segment, requiring more buses to transport the same number of passengers. The longer routes also made it much harder to keep to schedule, so punctuality deteriorated. Since the intertown route already offered much higher service frequencies than the rest of ACTION's network, and since reliability deteriorated, there was no effective reduction in waiting time for passengers on the intertown segment, just an increase in operating costs. The cost increase was exacerbated by the adoption of a slower, less direct intertown route and the addition of more stops, increasing travel times and therefore the number of buses required to operate the same service. For example, the 15-minute-frequency Sunday service on route 999 from Tuggeranong to Belconnen requires 10 buses in 2011; in 1994, the equivalent route 333 service only required 6 buses.

So operating costs increased but the level of service offered to the public did not, as trips became slower and less reliable. Patronage declined, leading to service cuts and further patronage decline. The change of government in 2001 saw a modest reversal of patronage losses, due to a fare reduction stemming from the abolition of fare zones, and the restoration of 'expresso' services, which had been abolished with the introduction of Network 99. Per capita usage staged a small recovery to 52 trips in 2005, while the 2006 census saw the share of work trips by public transport recover to 7.9 per cent (still well below 1991's 9.9 per cent), but this was achieved at the cost of steadily growing subsidies. Funding cuts in the 2006 budget saw reductions in off-peak service frequencies to hourly levels and the reinstatement of a separate weekend network. 'Gimmicks' like bike racks on buses and dial-a-bus evening services failed to stem the decline in usage, which has not responded to a restoration of funding in recent budgets either. By 2011, usage rates stood at around 46-47 trips per capita, less than half the 1985 peak of 96 and the lowest figure since bus services began in Canberra; conversely, subsidy levels are now the highest ever recorded.

Why *Transport for Canberra* won't work

The process by which the public transport component of TfC was produced mirrors that which led to the failed Graham report and Network 99. Instead of examining the evidence provided by the performance of different ACTION service approaches, TfC asserts a series of propositions about public transport service planning that have no evidence to support them at all. Foremost among these is that Canberra's public transport problems stem from low population densities, and that frequent services can only be supported in higher-density areas. As indicated above, Canberra's own experience from 1973 to the early 1990s – when usage rates doubled despite no change in density, and at a time when densities were lower than today – comprehensively debunks this myth. If further evidence is required, one need simply compare the maps in the 2006 ABS *Social Atlas for Canberra* showing population density (page 11) and public transport mode share (page 34). It can easily be seen that there is little relationship between the two variables.

The successful model of service provision employed by ACTION during the 70s and 80s provided frequent, inter-connected services to common standards applying across the whole of Canberra. It accepted that the city's density is relatively uniform by world standards, lacking the high density of a Manhattan, but also the very low densities of outer New York suburbs like Long Island, where one-acre allotments are common. ACTION achieved this by adopting an economical network structure designed to minimise operating costs. Frequent local feeders served travellers to town centres and central Canberra: 'expresso'-style services were avoided, because they are expensive to operate (generally each bus only makes one in-service trip per peak), and split demand (they cannot serve local travel). Intertown express services were fast (ironically, much faster than the current 'rapid' services), in order to compete with Canberra's high-speed road network and to avoid creating demand for expensive 'expresso' services. High speeds and high-occupancy vehicles also reduced running costs, allowing the intertown service to cross-subsidise the local routes that feed it.

TfC proposes the reverse of this successful model – on the basis, it must be stressed, of no evidence whatsoever, just like the Graham report. Most Canberrans would be consigned to low-standard 'coverage' services running once an hour: this means peak/shoulder waiting times four times as long as those applying in the same suburbs in the 1980s, when ACTION subsidies were much lower than today. Canberrans living in 'coverage' areas will instead be encouraged to use 'park & ride' to access the 'frequent network', an approach which only entrenches car dependence. It also exacerbates 'peaking' of demand, which worsens cost-recovery, because outside peak period, travellers will avoid park & ride and drive all the way to their destination.

Without adequate feeder routes, the 'frequent network' will not attract sufficient patrons to economically support high service levels, especially outside peak period. Off-peak and non-CBD travel, which comprise the great majority of trips in the ACT, will be especially poorly served. Peaking will worsen, further reducing operating efficiency. TfC proposes to retain inefficient through-routing on the intertown corridor, and further slow services and increase operating costs, with additional stops (for new park & ride lots) and a deviation via Erindale Centre.

The overall result will be a heavily-subsidised, poorly-patronised service that is irrelevant to the majority of Canberrans living in 'coverage' areas. The idea that these people will move to higher-density housing just to access buses that run every 15 minutes (30 minutes after 7 pm and on weekends) is fanciful. Instead, they will drive everywhere and come to resent paying taxes to support the growing subsidies required by a system designed to serve only a minority of the population.

A path not taken

Canada's national capital experienced similar transport debates to Canberra in the 1960s and early 1970s. Its equivalent of the CLUTS of 1967 was the Ottawa-Hull Area Transportation Study of 1965, which much like the Y-Plan proposed a 'balanced' transport system incorporating freeways and a bus rapid transit system. Just as in Canberra, the 'balanced' approach was questioned in the 1970s and formally replaced with a new policy favouring public transport over roads. Public transport upgrades commenced in 1972, the year before Canberra, and followed a similar pattern: high-quality services were extended from the relatively dense inner

city to cover the whole metropolitan area, particularly outer suburbs where it had been argued that densities were too low for quality public transport (see 'Bus Rapid Transit in Ottawa: 1978 to 2008', by S. Al-Dubikhi & P. Mees, *Town Planning Review* 81(4), 2010, 407-424). Ottawa's outer suburbs have similar densities to Canberra's.

Public transport patronage in Ottawa declined until 1972, then began a spectacular recovery similar to that experienced in Canberra over the same period. The difference is that, despite problems in the 1990s due to funding cuts by the Province of Ontario, Ottawa has persisted with its 'transit first' approach. Most planned freeways have been scrapped, and the city is served by a busway network that carries so many passengers that it is due to be replaced by a light rail system in the near future.

Patronage in calendar year 2010 was 144 million; however, Ottawa's population is two and a half times Canberra's. Per capita usage was 157 annual trips, more than three times the Canberra rate (although only 63% higher than the Canberra usage rate of 1985). At the 2006 census, 21.2 per cent of Ottawa workers travelled by public transport, nearly three times the Canberra figure of 7.9. Equally importantly, public transport usage and mode share are rising in Ottawa, while they continue to decline in Canberra. Expenditure on roads is much lower in Ottawa than in Canberra, but so also are public transport subsidies. The 2010 figure was $182 million ($Can188 million), which works out at $1.26 per passenger, around one-fifth the current Canberra figure, but similar to Canberra in 1984 (adjusted for inflation). It may be worth noting that public transport in Ottawa is owned and operated by the public sector (the City of Ottawa).

Ottawa has relatively high rates of walking and cycling to work, which in combination with strong public transport performance have given it the lowest rate of car use for travel to work in the US or Canada (New York is second-lowest). This is achieved with modest total subsidies and very low subsidies per passenger. Ottawa shows what Canberra could have achieved had it not changed direction in the mid-1980s: public transport in Canberra was headed in the same direction as Ottawa until this policy change, and the divergence has increased as a result of Canberra's disastrous transport policies of the last 20 years. The implementation of TfC would widen those differences further.

Ottawa has achieved high public transport use, low road expenditure and low public transport subsidies in a city that, unlike Canberra, was not planned to assist the efficient operation of public transport. Ottawa has no equivalent of Canberra's linear form or town centres: suburban employment and retailing are scattered across the landscape in an unplanned pattern that is difficult to serve by public transport. Canberra's urban form has changed only modestly since the mid-1980s: densities have increased, traffic congestion has worsened and the cost of parking has risen. It is not too late to reverse the policy mistakes of the last 25 years and put Canberra on the path to sustainable transport.

What about light rail?

The most important factor distracting attention from the cause of, and solution to, Canberra's public transport problems has been the 'density myth' discussed above.

The next most important distraction has been an abstract, almost 'theological' debate about the relative merits of busways and light rail.

The NCDC wasted large sums of money on a series of consultants' studies in the 1970s, designed to prove that busways were the only answer – oddly, not one of these studies actually compared busways to light rail – then abandoned the busway scheme in 1984. The last 20 years or so have seen a series of proposals for small, slow, isolated sections of tram line that do not link major trip generators such as town centres, and with no consideration of the feeder buses that would be needed to get passengers to the tram stops.

The correct position is that posited by Professor Vuchic: there is no such thing as an ideal public transport mode. The best systems will be multi-modal, and the choice should come after setting transport priorities and service planning, not before them. Ottawa has successfully used busways as the basis for a very effective public transport system: although high patronage now requires conversion to rail, Ottawa has more than double Canberra's population, so the case for busways may be stronger here. Elsewhere in Canada, Calgary has based a successful public transport system around light rail: total patronage in 2010 was 152 million, split roughly 50/50 between rail and bus; this is approximately 140 trips per capita, or three times Canberra's performance. However, neither Calgary's light rail nor Ottawa's busways would be successful if they had been implemented with a *Transport for Canberra* style plan that priorities freeways, provides very low-quality 'coverage' services as feeders to the rail/busway system and offers non-integrated timetables and long waiting times for transfers.

The planners of Calgary's light rail system identify the following factors as critical to their success ('Light Rail Transit in Calgary: The First 25 Years', by J. Hubbell and D. Colquhoun, 2006 International Light Rail Conference, St. Louis):–
• Calgary prepared the ground for its rail (LRT) system by restructuring its bus network around a series of express bus services and interchanges [just as ACTION did in the 1970s and 80s!]; this network raised patronage to the point where LRT could be justified.
• Calgary chose proven, low-tech technology for its rail system, to save costs and increase reliability.
• Successful public transport depends on restraint in the provision of roads and car parking.
• Good feeder bus service is critical to LRT success.

Conclusion

The initial question Canberra must answer is not 'Is light rail better than busways?' Rather, the question is: 'Should Canberra remain the nation's car capital, or should it recover its earlier role as a leader in public transport?' If the second alternative is preferred, Canberra will need to adopt a policy package like those deployed in Ottawa, Calgary and every other city with successful public transport (for more on this, see my 2010 book *Transport for Suburbia: Beyond the Automobile Age*).

This will require the abandonment of *Transport for Canberra*, and the establishment of a new approach to transport planning that breaks with the road-centric approach in

force since 1984. An essential part of this approach would be a public transport service model that focuses on efficiently providing fast, high-frequency, fully integrated services across the whole of Canberra, not just to a select few areas. The precise technology required for the trunk routes that underpin such a network is a question that should be addressed following the service planning process.