

UGB Extension: Crazy Economics

“Apart from raising serious questions about who influences policy, and who donates to major political parties, the recent extension of the Urban Growth Boundary in Melbourne is crazy economics. As usual there was no cost/benefit analysis, no professional estimation of the costs of household transport, emissions, social alienation, and loss of productive land. The Metropolitan Transport Forum wrote to the State Government and the Opposition last year demonstrating that the plan to locate 47% of Melbourne's growth in fringe areas will cost \$102 Billion more than if the development was in existing boundaries. (Or, I may add, with some adjustments, in regional towns with good road and rail connections.) The MTF also proposed that the Government commit to ensuring that wherever possible development should be within 400 metres of public transport.

“Most of the proposed fringe development is not within kilometres of train stations, and the buses, where available, are slow, intermittent, and uncoordinated. According to our national automobile associations the costs of running one car over 20 years is \$200,000, and two cars is \$400,000. In municipalities such as Casey and Manningham, with poor or no public transport services, households average more than two cars. A three car family out the back of Truganina could be paying \$600,000 in transport costs over 20 years. This makes a mockery of the notion of ‘cheap’ fringe housing. Families would be better off buying in Northcote or Footscray. There is a huge cost in bringing amenities to the fringe suburbs, such as water, sewerage, gas, electricity, streets, roads, lighting, communications; without even contemplating future public transport. The great proportion of this will not be paid by the land-bankers and developers. It will be funded by the public purse. The UGB extension is bad public policy and bad economics; highly unproductive, and a waste of resources.”

Brian Buckley, 11/8/10



Three car family home near Truganina

Counter Point

“Hi Steve, I enjoy your newsletter. Could I request that for balance you might include some comments/articles from ‘sceptics’ of sustainable transport? I for one have used every conceivable form of transport – car, bike, motorbike, bus, train, tram, walk, kayak! And now at 53 years of age I’ve come back to using the car. Let me give you thumbnail reasons. Bike (too dangerous: 15% of all road based serious injury crashes for negligible kms travelled); motorbike (again too dangerous: 22% of all road based serious injuries for slightly less negligible kms travelled); public transport (too slow, cumbersome and boring); walking (great, every city has an exceptionally good system of separated pathways but can’t walk far); kayak (fantastic but slow).

“So after a lifetime of experimenting with all of these, the car is still king and for nearly any metro city you’ll see most people come to the same conclusion especially as they age. Most cities, if you Google this you’ll see, have around 80% work trips by car, 1% work trips by bike, public transport trips vary greatly but very low. So my appeal to you is, get some knowledgeable commentaries on why this is so, not the usual cranks but reasonable logical transport writers on why this is so and then sustainable transport ideas and strategies may flow from it. Because I can tell you the vast majority of citizens are just not interested in bikes, buses, trams, trains. They want everyone else to use these! Thanks again for your great newsletter.”

Mark Broadly, 21/7/10

I like the fact that this Newsletter has a broad readership and is attracting some counter views. For the record, I recognise that our societies’ love affair with the car is so entrenched that – apart from an oil crisis – we are not going to change quickly. My hope is that we will adopt sustainable fuels from renewable sources; that we redesign our cities (as urban villages connected by sustainable transit corridors) to reduce car dependency; and that we provide sufficient, safe public transport, and walking and cycle ways, for those that want to use them – thus freeing up roads for those that have that need. Ideally we will also design more liveable cities – not dominated by the automobile, its noise and atmospheric pollution – where it is easy to cross a street and enjoy the amenity (and reduced crime) that good urban spaces can provide. These are long term, achievable goals but don’t hold your breath while our governments are encouraging urban sprawl, road congestion and road trauma and failing to adequately fund the public and active modes.

Stephen Ingrouille, 19/8/10

The Benefits of Light Rail (Part 1)

“Light rail is an urban rapid transit mode, powered by electricity, typically serving city centre and inner suburban areas, which is prevalent in Europe, North America and Asia. Able to carry more passengers than buses,¹ light rail services can either share road space with other forms of transport or operate on dedicated tracks – or a combination of the two. In Australia, light rail systems exist in Melbourne, Sydney and Adelaide, and one is currently being developed on the Gold Coast. For the purposes of this paper light rail refers to both trams and light rail.

“Its carrying capacity enables light rail to fill the gap between bus services and heavy rail, making it a valuable part of the public transport mix. Light rail services can provide an alternative to bus travel on busy CBD road corridors and increase public transport choice for journeys between suburban areas, especially inner suburban areas and city centres. Light rail should be regarded as complementary to other modes of transport rather than opposition to them. Not all corridors will be appropriate for light rail, but equally it may be a better option than buses and trains in certain cases. This potential has not fully been explored in most Australian cities.

“Light rail represents a sound option for governments seeking to increase CBD mobility and choice for commuters. It is an efficient, high-capacity mode that can effectively co-exist with other forms of public transport. From a city-branding perspective, light rail is attractive to residents, commuters, tourists and other visitors – an appeal that can be enhanced further by private sector marketing expertise. From a development perspective, light rail is conducive to urban regeneration projects, providing permanent infrastructure and frequently attracting a high ratio of associated investment. Electricity-powered light rail is also one of the most sustainable transport modes, at a time when responding to climate change is a major government priority and public concern.

“The broader economic benefits of light rail include its contribution to reducing congestion – which will cost Australia an estimated \$12.9 billion in 2010 – and increasing productivity through greater urban mobility and transport choice. Light rail has been found to be particularly effective in achieving mode shift away from private vehicle travel. It offers

efficiency, comfort, and high capacity. The visual reassurance of light rail infrastructure and the guarantee of regular and reliable services are particularly important factors in helping change urban travel behaviour.

“The capital cost of light rail can vary greatly, depending on the need for tunnelling or bridges, adoption of new technologies, whether the system is separated or integrated into existing road infrastructure, whether it is an extension of an existing system or a new system and so on. A typical cost range is between \$20 and \$40 million per kilometre including rolling stock. While during the construction phase a light rail system is likely to have higher capital costs than a bus system – because of infrastructure requirements – the mode has ongoing cost benefits through its ability to move more passengers per hour. Research undertaken by Transport for London in 2004 found that at capacity levels below 3,000-3,500 bus was generally the lower cost mode; however beyond 4,000 passengers per hour, light rail was the lowest cost mode. Thus, for medium to high density transport corridors, light rail can be best value for money.

“Light rail compares favourably with buses particularly in medium to high intensity transport corridors because the vehicles have a capacity of between 200 and 300 passengers – with the ability to link vehicles together to double that capacity. Each light rail vehicle carries the equivalent of approximately three articulated buses at capacity, enabling the system to carry 12,000 passengers per hour per direction. In addition, light rail vehicles have a service life expectancy of 30 years and beyond, almost double that of buses.

“With the ability to move more passengers per hour, light rail is able to achieve greater asset utilisation than buses on medium and high intensity transport corridors. For buses to achieve similar passenger movements along these corridors would require high level bus priority, including dedicated road space. It would also require additional rolling stock and bus drivers, increasing both the capital and operating costs. By contrast, the capital and operating costs of light rail systems on a per passenger basis diminish as patronage grows, making it highly cost-efficient in high-density areas and relatively cost-efficient in moderately dense areas. Some systems also operate driverless on dedicated lines, such as the Docklands light rail in East London, further reducing operating costs.” {Continued in #170}

Ref: Tourism and Transport Forum Position Paper, March 2010 See full report at:

<http://www.tf.org.au/DisplayFile.aspx?FileID=762>

¹ “A typical light rail vehicle carries between 200-300 passengers. An articulated bus carries approx. 90.”

On Early Adopters of EVs

“New York City often startles people and it stayed true to form in a recent analysis done by McKinsey & Company for the city’s PlaNYC planning group: ‘Exploring Electric Vehicle Adoption in New York City’. In particular, one of the report’s conclusions may come as a shock to many electric-vehicle advocates: It turns out you really don’t need very many public charging points to get people to use EVs. Over the next five years, the likely early adopters will simply adapt their behaviour to the limitations of the EVs: Early adopters do not appear to need a high-density public charging network. While the availability of charging at retail and curb-side locations may be reassuring to the average driver concerned about range limitations, the study suggests that the earliest consumers will be willing to change their driving behaviour and parking location, given their strong desire to purchase EVs. Thus, a dense public charging network will not be a strong priority for early adopters.

“Instead, it makes more sense to help those early adopters by streamlining the process for installing charging equipment in their homes, apartment buildings, or local garages: Given the likely strong demand among early adopters and the limited short-term supply of vehicles, initial actions would be most effective if they focused on helping early adopters enter the EV market. Survey respondents ... voiced a desire to have a convenient and easy-to-understand process to install necessary charging equipment, at home or in a commercial garage.

“This counterintuitive conclusion flies in the face of the received wisdom, which says drivers will avoid using electric cars unless they can be sure there are public quick-charge stations available wherever they may need them, because ‘range anxiety’ makes them nervous that they’ll run out of juice and be left stranded. But at least some EV advocates and urban planners who are now sketching out local and regional networks of EV infrastructure think the report is right on target. People quickly learn their electric car’s range, they say, and pick the appropriate vehicle for the day’s travel. ... Sure, things come up unexpectedly. But in cities and suburbs, it’s very rare that short local hops suddenly change to trips of more than 100 miles ...

“The full 24-page report ... can be downloaded from the PlaNYC 2030 section of New York City’s website.”

Ref: Fox News, The Age, 21/1/10

Electric Networked-Vehicle

“The EN-V - or Electric Networked-Vehicle - is a new two-seater concept vehicle that offers an autonomous mode which uses GPS and vehicle-to-vehicle communications along with distance-sensors and cameras to duck and weave its way through traffic using the quickest route. The GM EN-V is an upright two-wheeled electric vehicle that has been developed by General Motors and its Chinese joint venture partner Shanghai Automotive Industry Corporation. The core idea of the vehicle is personal mobility with a small footprint – both literally and environmentally. The EN-V is a zero-emissions vehicle (provided it’s recharged using ‘green’ energy), and the city runabout is designed to be plugged in to a regular power point overnight, with a range of only about 40km. The EN-V also operates like a social networking website, allowing occupants to communicate wirelessly with friends or business associates while on the road. ...



“It’s tiny, too. The EN-V is only 1.5-metres long, and weighs just 500kg - by comparison the Smart ForTwo (the smallest new car on Australian roads) is 2.7-metres long, and weighs in at 750kg. If the numbers don’t seem to add up, that’s because of the EN-V’s extra weight, which comes from the

bank of lithium-ion batteries that are used to power the twin 3kW electric motors. EN-V has been designed to ease the mind’s of commuters when it comes to traffic congestion, parking availability, air quality and affordability, and GM says the EN-V is ‘the vehicle for tomorrow’s cities’. The car - if you’d call it that - is based on the platform of the Segway (two-wheeled balance-based personal transporter). Under that funky looking shell hides two wheels, and two occupants can fit side by side in the cabin, which is undeniably futuristic in its design. GM says the EN-V should shift the way people think about vehicles. ... Estimates suggest that 60 per cent of global population will live in cities by 2030. The EN-V could well come in handy, then.”

Ref: Matt Campbell, The Age, 25/3/10

“In order for electric cars to maximise their greenhouse gas emission reduction potential and provide environmental benefits, a charging strategy that is adapted (as far as possible) to the fluctuations in production of renewable electricity must be developed.” **Ref: Towards a Resource-Efficient Transport System. EEA, 2010**

The Emperor's New Car (Part 2)

"There are credible reasons for gradually converting the world's car fleet from fossil-fuel-powered vehicles to electric vehicles, on the grounds of economic and environmental efficiency. These advantages can be summarised as:

- *Electric cars improve the security of vehicle energy supply by avoiding liquid fuels that are often imported from hostile or politically volatile countries and are being discovered at a slower rate than they are being depleted.*
- *Electric cars offer much improved air quality in cities.*
- *Electric cars offer drastically reduced traffic noise.*
- *Electric cars offer less CO2 emissions if the electricity comes from nuclear, hydro, solar, wind or perhaps biomass.*
- *Electric cars are sometimes more efficient than petrol or diesel cars.*

"However, these advantages appear to be equally balanced by the disadvantages:

- *Globally, most electricity is produced using highly environmentally damaging sources, and much of it is produced from fossil fuels. There is unlikely to be a significant change in the way this majority of electricity is produced in the foreseeable future. ...*
- *Cars – electric or otherwise – are most efficient when used for special trips on empty roads. However, most cars are used as a form of mass transport on congested roads, a task for which they are manifestly unsuited. Compared with efficient electric buses and trains, in most cases there is little economic or environmental justification for electric cars as a form of mass transportation. ...*
- *The main driving force behind the current rush to produce electric cars is coming from both the motor industry and the electrical generation industry. As sales of conventional vehicles falter due to economic recession and tougher environmental standards, the car and power companies hope to gain government subsidies for electric vehicles in order to maintain sales volumes and to capitalise on these tougher environmental laws. Many governments have shown themselves to be more than willing to spend taxpayers' money on what is essentially a bailout of ailing car companies, under the guise of environmental concern.*
- *Most electric vehicle advocates see these vehicles as part of a transition towards affordable, sustainable personal transport. However, there's an inherent 'Catch-22' in this equation. Globally, and, in most cases,*

nationally, 'green' energy is such a minor proportion of total energy production, that electric vehicles will invariably be powered by unsustainable and heavily polluting fuels, thereby negating the basic premise behind these vehicles. This harsh reality is unlikely to change substantially for the foreseeable future. Conversely, if unsustainable fuels were eliminated from the generation equation, the price of energy would rise so dramatically as to make personal transport unaffordable for most people.

- *While a shift to electric cars is perhaps inevitable, it does not currently appear to be either physically possible, nor desirable, to simply exchange a global fleet of oil-powered cars used as mass transport, for a global fleet of electric-powered cars used as mass transport.*
- *China is likely to be the main beneficiary of the electric car movement. Due to massive government investment, China is likely to be the first country to mass-produce electric cars at prices that are competitive with conventional petrol and diesel engines. However, these cars are likely to be produced using environmentally destructive materials and techniques, in factories that are powered by non-renewable and heavily polluting forms of energy."* {Continued in #170}

Ref: Clive Matthew-Wilson, *The Emperor's New Car, 2010* <http://dogandlemon.com/site/wp-content/uploads/2010/03/the-emperors-new-car.pdf>

Less Cars for Canberra Development

"Developers of a \$50 million mix of cafes and apartments at Kingston Foreshore are promoting pedestrian, electric car and ferry modes of transport rather than car ownership. An explosion of building over the next two years will result in more than 500 units on the waterfront around Eastlake Parade. New sites on Lake Burley Griffin's south-eastern edge will include the first mixed-use project, Aurora, which will have cafes, restaurants, retailing and possibly a small art gallery on the ground floor of the six-storey



structure. A public park will separate Aurora from the existing Waterfront apartments. Canberra developer Terry Shaw said ...

'The plan is to live here and play here and walk to work. We're encouraging pedestrians. You know what I'd like to see? I'd love to see a ferry'. Mr Shaw said charge points for electric cars and a solar system, enabling power to be sold back to the grid to offset body corporate charges for lighting common areas, were other sustainability features."

Ref: John Thistleton, *Canberra Times, 10/8/10*

“Electric cars may be better for the environment than petrol, diesel or LPG, but they are still a selfish indulgence for the daily commute when we are trying to mitigate traffic congestion on our roads. A comprehensive multi-focal, multi-nodal public transport network for Canberra is the answer.”

Ref: Comment, Canberra Times, 10/8/10

Active Transport

“An Australian Vision for Active Transport ... sets out a nine point plan for a national approach to boosting participation in walking, cycling and public transport. Initiatives include support for infrastructure, social marketing campaigns, embedding Healthy Spaces and Places planning principles into practice and enhancing safety for walkers and cyclists. ‘Encouraging Australians to use more active forms of transport rather than cars or taxis has a very wide range of benefits’, Vice President of the Australian Local Government Association, Mayor Felicity-ann Lewis said. Once adopted, our vision for active transport in Australia has potential to impact at least five major areas of government policy:

- *Local economy - towns with high levels of public transport use are wealthier, happier and more sustainable.*
- *Climate change and pollution fewer cars reduces greenhouse gases and improves air quality.*
- *Congestion more cycle ways and footpaths reduces cars on the road.*
- *Prevention physical activity reduces chronic disease and social isolation.*
- *Savings for government - by easing the economic burden of chronic disease caused by inactivity.*

“Mayor Lewis said: ‘At an individual level, Australians will reap the benefits of improved physical and mental health from being more active in the community as well as the cost savings associated with active transport. The broader community benefits from lower emissions and reduced traffic congestion and there are huge economic benefits associated with the reduced direct and indirect healthcare costs of a more active Australia estimated at more than \$1.5 billion a year’.

“Dr Lyn Roberts, CEO National, Heart Foundation said: ‘We need to make these healthier transport choices the easier choices by re-fitting our communities to promote physical activity – not obesity. Physical inactivity is a major health problem in its own right. Disturbingly, about half of Australian adults (54%) are not sufficiently physically active to

gain health benefits and this could lead to an estimated 16 000 premature deaths every year, robbing families of their loved ones’.

“International Association of Public Transport Executive Director, Peter Moore said: ‘Active transport is one of the largest opportunities we have to address the major issues facing society and changing people’s travel habits to forms other than the private car can significantly improve Australia’s quality of life. Public transport can make a major contribution, but it needs expanded capacity and we need incentives for Australians to take public transport through enhanced infrastructure and quality, cost effective, high performance systems’.

“Cycling Promotion Fund spokesman, Stephen Hodge said: ‘Cycling and walking infrastructure is cheap, provides significant benefits for all communities and is ideal for getting to our local public transport trip.’ ...

“It’s in the national interest for the Commonwealth to be involved in the provision of public and active transport to address congestion, climate change, social isolation and inactivity levels. And this initiative provides the clear direction and actions needed for a healthier, happier, cleaner and greener Australia.” **Ref: Media Release, 12/8/10**

Monash Free Bike Plan

“Monash is the first university in Victoria to offer resident students free campus bicycles to traverse the sprawling campus and visit nearby shops. Besides helping students get to classes on time – the main motivation behind the \$40,000 scheme is to encourage all students at Monash to consider bicycles when travelling to university. Students must wear helmets and pay a \$500 refundable bond for a key that gives them access to 100 bicycles. Paul Barton, from the university’s office of environmental sustainability, said the free bicycle scheme was about promoting sustainable transport....He said 300 students had registered and 60 were on a waiting list. While a lacklustre response to the CBD’s \$5.5 million bicycle-hire scheme has been blamed on the need to bring and wear a helmet, Mr Barton says students registered for the university scheme were provided with helmets and had been using them.”

Ref: Jason Dowling, The Age, 2/8/10

> Earlier this month I finally saw someone using a CBD bike-share bike (sans helmet); presumably a tourist as he was riding along gawking at the tops of buildings in Elizabeth Street. Is this an unforeseen factor: the ‘vague cyclist’ yet another reason for calming traffic in the city? **SI**

More on Dirty Public Transport

“Good work, especially the article of ‘In search of a mop and bucket’. I’ve been fuming about this issue for years now, and – especially – its manifestation as filthy seats on Melbourne’s public transport. Melbourne has the filthiest PT in probably the world of countries of comparable per capita wealth. Nowhere in USA (LA, San Francisco, Washington DC, Boston, NY, Denver, Chicago) have I seen dirty seats or floors of PT vehicles. Never in Singapore, Malaysia, Vietnam, China, Hong Kong or Japan. Never in the old EU Europe (Belgium, Netherlands, Germany, Austria, France) or Scotland ... Not in Sydney, Perth or Brisbane. ... Why do I make a fuss? Because so many people have said to me they don’t like train travel because of the perceived filth of the vehicles. That means a loss of potential patronage. ... New York sorted out the vandalism and crime in its subway (Mayor Rudi Giuliani), and that service hasn’t looked back since.” **Peter Hill, 17/8/10**

Problems with Sat-Nav

“Over half of UK drivers own or use a sat-nav, but only one in eight trust it to take them to their destination, research by Manheim Auctions has revealed. That’s because over a third of Brits have got completely lost while relying on their navigation system, with 15% missing an important event, such as a job interview, wedding or first date. ... Some destinations cannot be pinpointed exactly and we’ve all heard horror stories of people stuck in dangerous places because they’ve only paid attention to the voice and not the road around them.”



Ref: Traffic Technology Today, 11/8/10

And Also ... Emergency Exit

“A flight attendant, furious with passengers who refused to follow his instructions, told them off over the loudspeaker before pulling the chute to make his own dramatic personal emergency exit, US police said. ... ‘He [Steven Slater] activated the inflatable evacuation slide at service exit R1, launched himself off the plane, an Embraer 190, ran to the employee parking lot and left the airport in a car he had parked there’. ... Police arrested Mr Slater shortly after at his home nearby in Queens [and he] was charged with criminal mischief and reckless endangerment. A Facebook fan page says an appeal fund will be set up to help pay for his court costs.”

Ref: The Age, 10/8/10

Horse-Drawn Hummer

“This is the most fuel-efficient Hummer in the world. Despite weighing roughly 2 tonnes, it uses no fuel, unless you count hay or grass. Known as the CEO Stagecoach, the horse-drawn Hummer is the work of artist Jeremy Dean, who bought a new H2 Hummer and chopped it up in protest at the United States’ ‘culture of excess’. As part of his protest, the artist removed the Hummer’s 6.2-litre V8 engine, which drinks a massive 30 litres of petrol per 100km - about three times as much as a Commodore.



“He also re-arranged the cabin of the Hummer, installing two outdoor leather seats above the car’s engine bay and fitting massive chrome wheels, a huge audio and entertainment system, and working LED lights. There’s even a chrome luggage rack on top of the car with the letters ‘CEO’ emblazoned upon it. ... Dean says he has created the engineless Hummer horse-cart as a response to America’s part in the global financial crisis. He says the Hummer and cart is a modern interpretation of the little-known Ford Model T horse-carts of the Great Depression. In the Depression, car owners who were unable to afford fuel for their cars removed the engines and used horses to pull them instead. ‘This project uses American symbols of power and status to questions our future by looking at a past response to excess and subsequent collapse’, says Dean. ... ‘If we don’t rethink our reliance on a hyper-inflated, consumption-based oil economy, we may be left with no other options than to hook our cars up to a horse’, he says. ‘This is an exploration of historical amnesia, the culture of excess, financial collapse, sustainability and the future, through leather steel and chrome’. Dean has created a range of scale models to accompany the Hummer horse-cart as a part of his ‘Back to the Futurama’ series of works. The title is a play on the General Motors ‘Futurama’ display at the 1939 World Fair, where the company claimed the automobile would save the world.”

Ref: Matt Campbell, The Age, 22/3/10