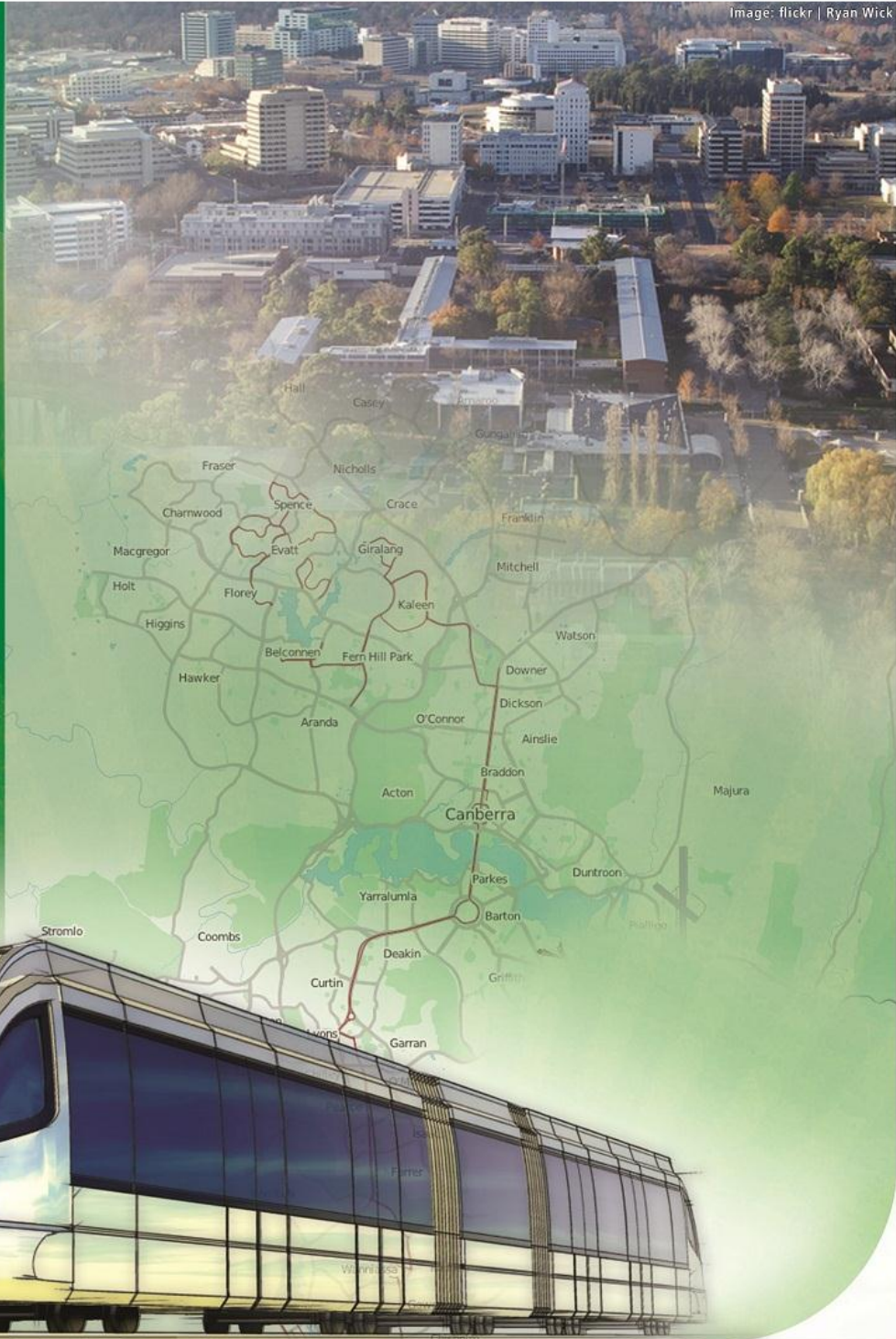


**THE
GREENS.**



**the canberra
light rail network**

get on board

**THE
GREENS**

Canberra's Transport Future: Light Rail

The ACT Greens will:

- Commit to building light rail for Canberra
 - \$200 million initial Government funding committed to light rail;
 - An ACT-wide light rail master plan, covering existing and developing areas;
 - Construction on Canberra's first light rail route beginning by 2015.
- Independently manage the project through the Canberra Urban Transit Authority, a new independent body to design, cost and manage funding and construction of light rail in Canberra.

"Light rail is a convenient, cost effective, quiet and low-carbon form of public transport. It's time for Canberra to get on board."

- Amanda Bresnan MLA

A transport system for Canberra's Future

Canberra is ready for light rail.

Study after study shows that light rail would bring enormous benefits to Canberra and set us up as a connected, sustainable and liveable city for the future. Yet no Government has taken the challenge to start building light rail for Canberra.

Light rail is a rapid, electrified mass transit system. It must be a part of our vision for the future, as we move into an era where climate change, petrol prices and traffic congestion demand a rethink of how Canberra works.



Our population of 367,800¹ and the density² of Canberra are right for light rail. The population is expected to increase by another 80,000 by 2030,³ compounding our transport challenges. Around the world cities with populations similar to Canberra's operate light rail systems.⁴

Our transport system will be a key part of Canberra's long-term economic, environmental and social health. Not only will light rail move people efficiently and reduce pollution, it will also help bring significant economic and cultural opportunities.

Light rail is an investment today that will mean savings in the future.



¹ Australian Bureau of Statistics, *Regional Population Growth, Australia, 2011*, <http://www.abs.gov.au/ausstats/abs@.nsf/Products/3218.0~2011~Main+Features~Australian+Capital+Territory?OpenDocument>

² C Gordon (2010). *Latent demand for transit: the case of Canberra's proposed LRT*. Paper delivered at 33rd Australasian Transport Research Forum Conference held Canberra, 29 September - 1 October, 2010

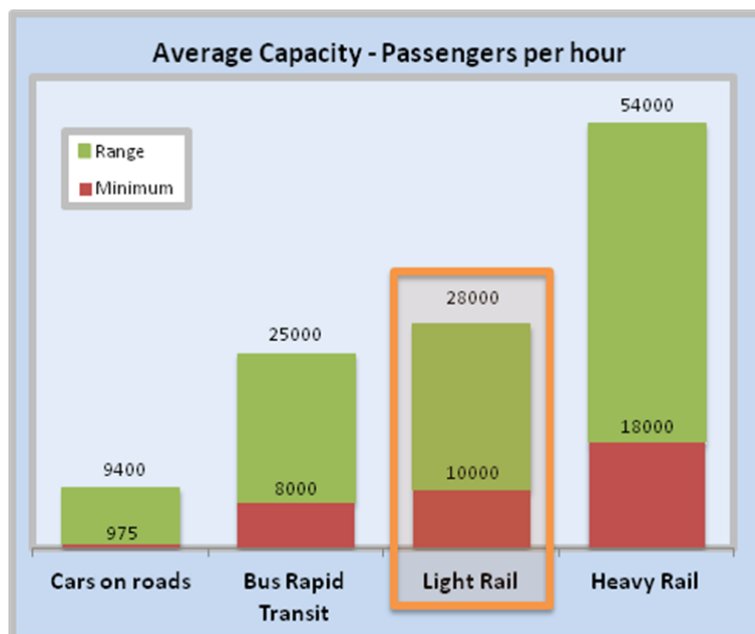
³ ACT Government, *Time to Talk Outcomes Report*, December 2010

⁴ For example, Trenton, New Jersey and Tacoma, Washington. See C Gordon, Above n2

Why Light Rail?

Light rail is experiencing a renaissance in cities around the world for good reasons. While buses can provide a very good public transport system – and they will remain an important part of our system – light rail has several important advantages applicable to Canberra. Some of these include:

More capacity, flexible capacity:⁵ Light rail vehicles can carry more passengers than buses and multiple carriages make light rail more flexible to passenger numbers. These are important factors in Canberra for reducing overcrowding on the busiest routes, and for adapting to varying passenger numbers. The higher carrying capacity also allows fewer vehicles and reduces vehicle congestion on the busiest routes.



Faster, more reliable, simpler: In general, commercial speed and timetable reliability of rail

systems are higher than bus systems. Rail systems are also inherently simpler than bus systems, especially for tourists and non-regular users.⁶ Improved travel times, reliability and passenger comfort of rail compared to buses are reasons why rail is being built in over 100 US cities, why Metros are being built in 83 Chinese cities and 14 Indian cities, and why Australian capital cities are now upgrading their rail networks due to large demand increases.

More attractive and comfortable = more passengers: A key consideration for Canberra's public transport system is: "which type of transport do people prefer to use?" Canberra is Australia's most car-reliant capital city, and it is essential that our transport system facilitates a 'modal shift' towards sustainable transport. Compared to buses, light rail is

⁵ Graph citations: Vehicles per hour rates from: UK Department of Transport, Design Manual for Roads and Bridges: Volume 5 (Traffic Capacity of Urban Roads) <http://www.dft.gov.uk/ha/standards/dmrb/>. Assumed average passengers per vehicle is 1.3 (based on averaged occupancy rates Barry Dr, Flemington Rd, and Adelaide Av, assessed by consultant 2012, http://www.tams.act.gov.au/_data/assets/pdf_file/0016/241306/Transit_Lane_Study.pdf). Bus Rapid Transit rates from: Transit Cooperative Research Program Report 90: Bus Rapid Transit, Volume 2: Implementation Guidelines, 2003 (http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rpt_90v2.pdf); Light rail rates from: Transit Cooperative Research Program Report 13: Rail Transit Capacity, 1996 (http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rpt_13-a.pdf); Heavy rail capacity from: Transit Cooperative Research Program Report 13: Rail Transit Capacity, 1996 (http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rpt_13-a.pdf)

⁶ Peter Newman and Jan Scheurer, *The Knowledge Arc Light Rail: A concept for delivering the next phase of public transport in Perth* (2010), (Section C: Why Light Rail, not Buses?) http://www.datastor.net.au/southperth/Knowledge_Arc_Light_Rail.pdf

much better at attracting passengers out of their cars and onto public transport. This is known as 'the sparks effect' and is so consistently found that it is frequently built into passenger estimates at about 20% over other transit patronage.⁷ Extensive research in Europe has shown that for cities with a comparable population to Canberra, those with light rail systems have about three times as many journeys by public transport per resident than those with bus systems only.⁸

Attracting development and funding: A 'fixed track' transport project like light rail has a very positive impact on development along its route and at stations,¹⁰ attracting more development, increasing its value, and generating more economic and social activity.

"[Light Rail] remains the mode of choice as an instrument for strategic transformation of urban transport in cities led by confident and forward-looking administrations who understand the concept of integrated transport planning."⁹

This will greatly benefit Canberra's future planning, and help create a more compact city. Importantly, the increased development and land value allows the government the opportunity to recoup money to help pay for the project (see below). The evidence from around the world is that people living in developments that are built to take advantage of transport corridors (a 'transport oriented development') have 50% less car use (and save \$20,000 a year through needing one less car per household).¹¹

A 100% renewable energy transport system: Light rail runs on electricity, meaning it can use renewable power and can draw regenerative power from braking. It is not reliant on oil, making it a smart long term solution. It is quieter and creates less local air pollution than a bus system.

A 100% clean light rail system is already in operation in the City of Calgary in Alberta, Canada. The entire 44km light rail system (CTrain) runs on 7.2MW of installed wind power sourced through a local renewable energy provider. It carries 280,000 passengers a weekday and reduced CO2 emissions by 47,000 tonnes in 2010.¹²

⁷ Peter Newman and J Kenworthy, *Sustainability and Cities: Overcoming Automobile Dependence* (1999).

⁸ Carmen Hass-Klau et al *Bus or Light Rail: Making the Right Choice. A Financial, Operational and Demand Comparison of Light Rail, Guided Buses, Busways and Bus Lanes* (2003). (Quoted in Kellogg Brown Root (for ACTPLA), *Canberra Public Transport Futures Feasibility Study, Final Report: Economic and Financial Implications of Transport Options, 2004* (KBR study)

⁹ Carmen Hass-Klau et al *Bus or Light Rail: Making the Right Choice. A Financial, Operational and Demand Comparison of Light Rail, Guided Buses, Busways and Bus Lanes* (2003). (Quoted in Newman and Scheurer, Above, n9)

¹⁰ Matthew Doherty, *Funding public transport development through land value capture programs* (http://ecotransit.org.au/ets/files/land_value_capture_mdoherty2004.pdf)

¹¹ Peter Newman and Jan Scheurer, *The Knowledge Arc Light Rail: A concept for delivering the next phase of public transport in Perth* (2010), http://www.datastor.net.au/southperth/Knowledge_Arc_Light_Rail.pdf

¹² http://www.calgarytransit.com/environment/ct_environment.html



The ACT Greens Light Rail Plan

The ACT Greens light rail plan involves:

- Committing the first **\$200M** of Government capital funding to light rail through the 2013-14 Budget, and commencing building the first route by 2015;
- Establishing an **authority independent of Government** to manage the implementation of light rail;
- Raising funding for light rail through **value capture financing arrangements**, and private investment partnerships;
- Establishing an **ACT-wide light rail master plan** for the longer-term development of light rail right across Canberra.



Commitment to Light Rail: \$200M initial Government funding to commence building the first light rail route by 2015

The ACT Greens will make the commitment to light rail for Canberra by providing the initial \$200M for light rail through the 2013-14 ACT Budget.

This funding should be considered 'seed funding'. The overall cost to Government of light rail will vary considerably, depending on where it is built, how it is built, and whether other financiers share the costs.

The ACT Greens expect the \$200M will be augmented with significant amounts of capital raised through 'value capture' methods.

There is also the potential for contributions from the Federal Government or private investors, and for additional allocations through future ACT Budgets. The \$200M of committed funding will help attract further investment to the light rail project. The ACT Government took the same approach to the Majura Parkway project, committing half the funding in the 2011-12 Budget, which helped secure Federal Government investment.

On its own, \$200M will pay for a considerable part of light rail. For example, a study on Canberra transport conducted for the ACT Government in 2004 priced a light rail route from Civic to Belconnen at \$180M; Tuggeranong to Civic at \$324M; Gungahlin to Civic at \$204M; and Kingston to Civic at \$177M (note these are in June 2003 dollars).¹³

Cutting through the politics: \$5.2M for an independent authority to implement light rail in Canberra

Successive Governments have been too focused on short term politics. Despite the expert reports highlighting the benefits of light rail and the strong community support, governments have failed to deliver light rail to Canberra..

The ACT Greens would cut through the short term politics by establishing a new independent authority to lead the implementation of light rail: the Canberra Urban Transit Authority (CUTA). The Authority will be a statutory independent body, governed by a highly qualified board of seven, with a Chief Executive Officer and staff.

The Authority will be tasked with:

- a clear implementation agenda to ensure light rail is delivered in a timely, effective and cost-efficient way. It will consult with business and the community;
- determining the ideal location and order of construction of the Canberra light rail system, taking account of transport needs, sustainable development

¹³ KBR study, Above n11



principles, economic return and levels of patronage. This will result in a clear, Canberra-wide master plan for implementing light rail;

- managing planning incentives and 'value capture' initiatives to raise funds and ensure best use of the light rail corridors (in conjunction with the Land Development Agency).

Raising additional funds: 'value capture', private-public partnerships, and other financial opportunities

Light rail provides a unique opportunity for the ACT Government to create vibrant transport corridors, while at the same time raising funds that are used to pay for the project. A bus system does not have the same ability.

This means that despite its high upfront capital costs, light rail is not an expensive option as long as it is developed properly to take advantage of land development and value capture opportunities.

Under the ACT Greens' proposal, the independent authority (CUTA) would investigate funding the project through a private/public alliance model that combines an operator, train builder and land development consortia. This funding model is a positive way to combine private and public interests, and is the same funding model being used on the Gold Coast light rail project.

Combining public transport and private development is an effective way to create appropriately developed transport corridors and a more compact, sustainable city.

What is "value capture"?

"Value capture" is where the Government recoups money (or other concessions) from developers for additional benefits the developers derive from developing in the light rail corridor. This money is used to help pay for the light rail project.

If done well, value capture on a light rail route will create a situation where developers, government and the community all win.

Developing in a light rail corridor is particularly attractive to developers. The corridors attract significant numbers of people – to live, visit and shop – and developments in light rail corridors don't need as much car parking space, allowing a developer to save costs, and take maximum advantage of land space.

Examples of value capture on a light rail route:

* Instead of having to spend up to \$40,000 for each car parking space,¹⁴ a developer can be permitted to build fewer car parks and contribute some of the difference to funding the light rail project.

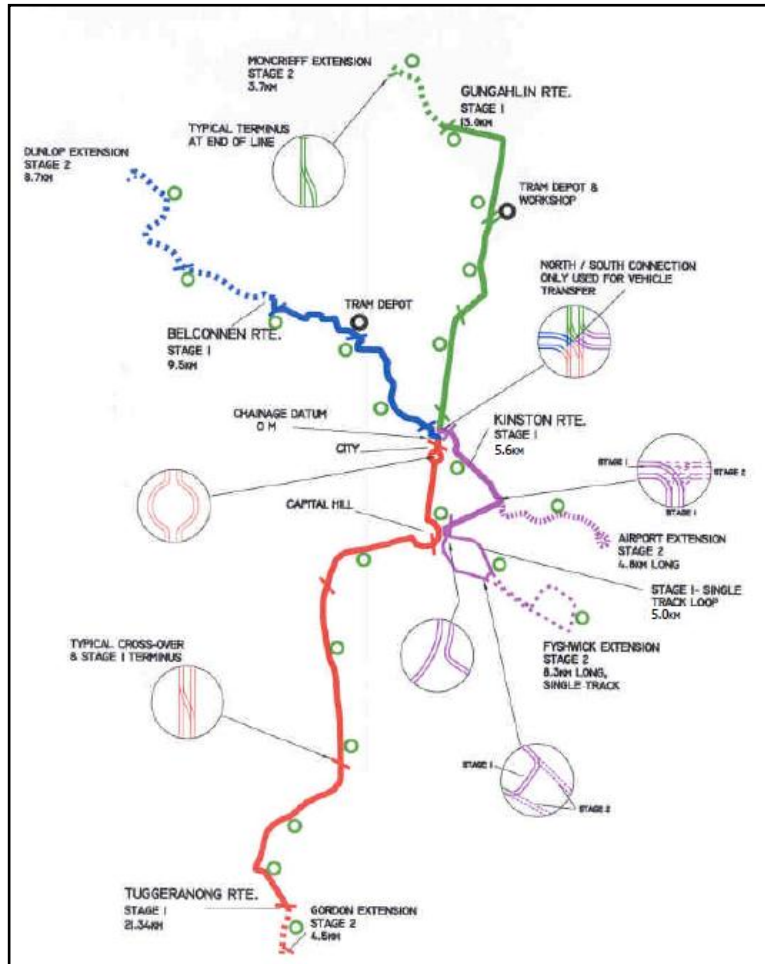
* Developers contribute to Government a proportion of the development's increased profitability that is attributable to the light rail project.

* For Government owned land: this land will become more valuable and the sale or joint development with the private sector of that land will raise additional funds that can contribute to the cost of the light rail project.

¹⁴ The estimated cost of constructing car parks, per space, is \$3,000 (at grade), \$25,000 (undercover), \$40,000 (basement), \$25,000 (multi storey). Costs based on average costs from Australian capital cities from <http://parkingconsultants.com/>

Light rail for all of Canberra: \$1.4M for detailed design of a Canberra-wide light rail network

The Canberra Urban Transit Authority will be tasked with assessing the planning and financing arrangements, and will recommend the best initial route.



Potential Canberra light rail routes (from 2004 study)

development. A long term integrated light rail plan is an important feature of any case for federal funding.

The masterplan will include an examination of building light rail to new suburbs such as the Molonglo suburbs. Building light rail tracks to suburbs before they are developed is advantageous because it is a fraction of the cost of retrofitting, and new suburbs are able to develop around the fixed light rail route.

Image credits:

Front page: Photograph of Canberra city: Ryan Wick, Flickr
"A transport system for Canberra's future": Blue tram, Daniel Sparing, Flickr; Green tram, LHOON, Flickr.
"Light Rail for Canberra": Map of potential light rail routes, KBR study, Above n11

¹⁵ KBR study, Above n11

Cost Details

		2013-14	2014-15	2015-16	2016-17	TOTAL OVER 4 YEARS
		\$M	\$M	\$M	\$M	\$M
Light rail construction	Capital Expenditure	...	...	100	100	200
	Recurrent Expenditure	...	...	4.25	8.5	12.75*
Establish and operate Canberra Urban Transit Authority	Capital Expenditure	....	....	....	....	...
	Recurrent Expenditure	1.253	1.284	1.316	1.349	5.203
Design - Canberra light rail masterplan	Capital Expenditure	1.4	...	...	...	1.4
	Recurrent Expenditure	0.06	0.06	0.06	0.06	0.24*

* This figure was updated on the 4th of October to include the cost of borrowing capital and is based on information supplied by ACT Treasury.

Your Greens Representatives in the ACT Legislative Assembly



Caroline Le Couteur MLA, Member for Molonglo
Shane Rattenbury MLA, Member for Molonglo
Meredith Hunter MLA, Member for Ginninderra
Amanda Bresnan MLA, Member for Brindabella

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