

Shiny New Trains and Buses for Melbourne

But will they put extra bums on seats?

On 24th Oct 2022 the State government announced “work is ramping up to deliver Melbourne’s most modern trains – the X’Trapolis 2.0 – as part of an investment by the Andrews Labor Government to deliver a modernised fleet to meet the needs of all Victorians”. “The \$986 million project will....create up to 750 jobs for people in Victoria...bolstering the Labor Government’s commitment to support jobs across our state and continue the pipeline of local manufacturing”...(and by the way) providing passengers with a more accessible, reliable and energy efficient journey...” This follows an earlier announcement that it would purchase electric buses.

Shiny new vehicles are nice, and creating jobs is nice too and should enhance the government’s prospects this year but will this investment really improve our transport system? Would it increase patronage? Would it result in a significant reduction in greenhouse emissions and are there better ways to spend this money?

If the State government wants a good return on investment in public transport it needs to improve the quality of service by providing what the community wants– not spend money on what government thinks is good for it.

Key service issues for public transport users have been well understood for many years. These were discussed in our 2019 annual forum and are tabulated below.

Public Transport Customer Service Issues

Ref charts provided by Prof Graham Currie summarized roughly in tabular form below

Service Issue General Ranking	PT Issue Importance	PT Issue Importance (on scale of 3.5-6.5) Note: all scored between 6.4 – 5.6)	PT Issue Performance (on scale of 3.5-6.5)
1	Safe at night	6.4 Highest	4.5 Worst – v poor
2	Reliability	6.3 Second highest	5.2 poor
3	Frequency	6.25	5.0 poor
4	Safe during day	6.4	5.4
5	PT available where and when needed	6.1	5.0 poor
6	Deal with disruptions quickly	6.2	4.5 V poor

7	Get to stops/stations	6.0	5.0	
8	Quality of service	6.0	4.5	V poor
9	Make connections	6.0	5.0	poor
10	Available on weekends	6.2	5.5	
11	Get information about PT	6.0	5.3	
12	Disruptions don't happen often	6.0	4.8	Very poor
13	Meet costs	5.9	5.0	poor
14	Information to plan journey	6.0	5.2	
15	People I care for can use it safely	6.2	4.6	Poor
16	Available at night	5.8	5.0	
17	Ease of buying/using a ticket	6.1	5.1	
18	Over crowding	5.9		
19	Staff courteous and friendly	5.8	5.1	
20	Physical access	5.8	5.9	
21	Can make trips to new places on PT	5.7	5.0	
22	Travel time compared to car	5.7	4.3	V poor

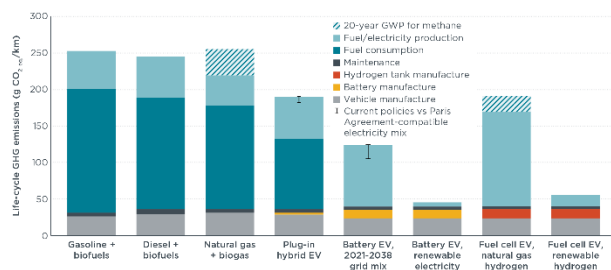
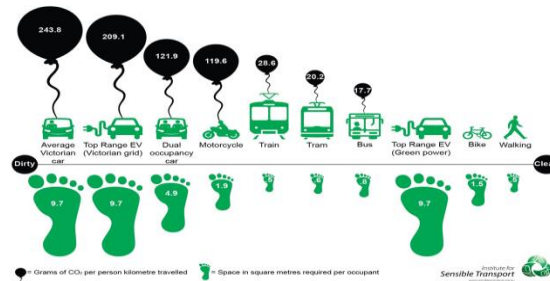
Source: Currie G Delbosc
A (2015) Variation I Perceptions of Urban Public Transport
Between International Cities Using Spiral Plot Analysis
TRANSPORTATION RESEARCH RECORD
No 2538 on pages 54- 64

It is important to notice that shiny new buses and trains are not listed as a priority in the table above, nor is shiny new infrastructure like the suburban Rail Loop. Travellers will accept old rolling stock so long as it satisfies their basic needs such as safety, comfort, reliability and is properly maintained. Creation of new jobs does not rate either so why is government spending vast sums of money on things which travellers rate as a low or no priority?

New rolling stock may provide operating cost savings, and even environmental benefits, both of which may be compelling reasons for upgrading but neither have been discussed or quantified. There will be a time when rolling stock must be replaced after reaching the end of its economic life but this must be linked to patronage projections – there is no point running shiny new trains and buses if they do not generate additional patronage or are poorly patronised.

It is important to pursue environmental benefits but be realistic about the extent to which these are realised and examine ways in which these can be best achieved. Buying electric vehicles is one option but there are others. As noted in earlier blogs, no form of transport (other than active transport by foot or bike) is emission free. Considerable energy is required to produce all vehicles in the first place, maintain and dispose of them at the end of their economic life. The calculation must include supporting infrastructure such as roads, rail lines etc based on a whole of life analysis. It must also include the power source itself, which, in Victoria is not 100% renewable and unlikely to be so for many years.

There are many ways in which emissions can be reduced, but this must be carried out for the system as a whole, some of which were discussed at our last forum. Relying on a single measure such as replacing the existing bus fleet with electric vehicles will be insufficient and will divert attention from other measures which may yield greater benefits.



Life-cycle GHG emissions for global typical medium-size passenger cars registered in 2021.

So what should government priorities look like? It is argued that the rationale should be based on the following criteria:

- Low cost/high benefit, recognising that funds are scarce and need to be spent wisely to get the best return on investment
- Quick returns – the quicker the better
- Low risk – critical in uncertain times of rapid change
- Provide system wide benefits – to as many people as possible, particularly to those who are socially and economically disadvantaged.

There are many actions that can be taken that satisfy all of the above, some of which have been forwarded in formal submissions to government over recent years. Some of these have been based on TfM’s annual forums. Many of these can be implemented at minimal or even zero cost, and should be implemented as a package which is part of a Melbourne Transport Plan, but there are no simple single fix solutions.

From an environmental perspective there is an imperative to travel less/less often as well as travelling more efficiently. This was discussed at TfM’s last two forums. It was also the subject of a paper by Damon Honnery and Patrick Moriarty, referred to in our blog *The Imperative To travel Less* on 31/8. Progressing this requires a program that includes behavioural change. There are several levers that can be applied to achieve this but it will not happen unless governments at all levels are really serious about responding to our environmental situation.