

14 December 2022

Brisbane New Bus Network
Brisbane City Council
GPO Box 1434
Brisbane Qld 4001

RE: Brisbane Bus Network Review – Back to the Future

The Royal Automobile Club of Queensland (RACQ) welcomes the opportunity to complete a submission on Brisbane City Council's proposed Brisbane Bus Network Review. The RACQ is Queensland's peak motoring organisation with a long history of advocating for improved roads, mobility and transport options on behalf of our almost 1.8 million members. RACQ commends Brisbane City Council on their leadership on delivering the Brisbane Metro as well as undertaking a broader review and update of the Brisbane bus network.

A well-functioning public transport system is fundamental to achieving a resilient transport network and sustainable urban communities. Recent surveys of RACQ members on South East Queensland transport indicate a desire to focus on improving and completing existing transport infrastructure.

A population forecast of 5.9 million by 2050 means Greater Brisbane will have increasing transport demand and ongoing investment into public transport infrastructure will be required to alleviate congestion. Due to Brisbane/SEQ experiencing most of its significant population growth following the mass advent of cars post war, Brisbane has a relatively smaller rail network compared to Sydney and Melbourne. The new and additional public transport infrastructure capital expenditure required for a 'younger' city region like Greater Brisbane and SEQ is much higher than more established cities.

While the benefits of heavy and light rail are well understood the infrastructure costs of new rail are also well understood. Adding new rail lines and extensions within Brisbane into the future, beyond what is being delivered with Cross River Rail, may make sense. There is a limit however to what new rail can be added in terms of cost and delivery capacity within the near-term period (out to 2032), given that Brisbane, with the 2032 Olympic and Paralympic Games, will see a significant short-term increase in population and transport activity.

RACQ believes the only practical short term public transport approach within Brisbane is with improvement in bus services and infrastructure. Brisbane has always had a higher reliance on buses than other Australian capital cities. Buses essentially underpin the public transport system in Brisbane and are flexible in connecting suburbs with city and suburban centres. However, buses are less popular than light rail and or trains. This due to several factors including buses traditionally having diesel drivetrains they have a rougher ride with differing floor levels to accommodate engines, fuel tanks and transmission. In comparison, light rail and trains have low flat floors, are electric and they offer a smoother and more consistent ride.

RACQ supports Brisbane Metro, which is a strategic public transport infrastructure project in that it combines two ideas - the existing/upgraded busway infrastructure with new electric low floor, multi door metro style tram buses. This combination will provide for both a higher passenger capacity and a higher quality electric-smooth ride. The ongoing expansion of the Brisbane Metro is a short to medium term alternative to new rail infrastructure. The double articulated Brisbane

Metro vehicles however makes extensions in the short-term challenging as it requires dedicated exclusive busway extensions which are reasonably costly to build.

The near-term solution could be to use shorter length 'metro style' tram buses and to use transit ways or bus dedicated bus lanes. This type of shorter length tram bus service could be called the 'Metro Glider'; in that it is a similar but shorter vehicle than the high-quality Brisbane Metro and similar in function to the existing Glider services.

The opportunity to extend the Brisbane Metro standard quality of vehicle through the implementation of differing size of tram bus / trackless tram service is visualised below:



Brisbane Metro (above) – double articulated 'tram style' rubber wheel electric – operating on busway station platforms



Metro Glider (above) – single articulated 'tram style' rubber wheel electric – operate on busway, transit lanes, main roads with upgraded road platform stops

The advantages of a Metro Glider service would be:

- Flexibility of operating higher capacity high quality electric services on multiple routes and corridors (including busway, existing Glider routes and on transit lanes),
- Provide higher quality electric feeder services for Brisbane Metro (providing easy transfer between Metro Glider and Brisbane Metro services) – particularly on Brisbane northside where Brisbane Metro operates only to RWBH Station, and
- Provide 'lead in' services to 'prove up' demand for extensions of Brisbane Metro infrastructure

The implementation of a Metro Glider service would be enabled and improved by relatively low-cost network prioritisation measures such as transit lanes that are already in place or new lanes that the State Government is delivering, for example Old Cleveland Road and Gympie Road. These measures can generally be implemented at a significantly lower cost when compared to construction of new separated bus way infrastructure. Metro Glider would also justify upgrading bus stops to a superior level to give a 'tram stop' feel (which would also help drive urban development along key routes as demonstrated by existing Glider services).

In terms of Metro Glider vehicle options, it would be expected that the Metro Glider would be electric drivetrain. European single articulated and rigid tram buses examples have used a variety of energy systems. These options include all electric with enroute top up charging, range extenders which can be ethanol, bio diesel or hydrogen fuel cell. Increasingly they are all electric using all day batteries for shorter routes or using top up enroute charging for longer routes. With increasing battery density RACQ believed the best solution is likely to be all electric or



alternatively electric with easily removable ethanol range extender generators with low-cost infrastructure requirements.

RACQ recognises that the bus network review will achieve an overall improvement to the network, however the north and north-western areas of Brisbane post Brisbane Metro will be lacking still lacking in service quality compared to other sectors better serviced by Brisbane Metro. It may be these areas should be a particular focus of any consideration of Metro Glider concept.

Furthermore, the ten (10) worst performing routes (396, 329, 345 & 385, 199, 314, 303, 313, and 304) outlined in the Brisbane Network Review document (page 10) have either no proposed changes or alternative final destinations under the proposed bus network. By not addressing the poorer performing routes, there is a increased likelihood that the public transport patronage will continue to lag in these parts of Brisbane.

RACQ suggests that a specific investigation as to 'on demand' transport be considered for the areas serviced by these routes. 'On demand' transport may provide better and more cost-effective public transport services.

RACQ would be pleased to discuss our submission in further detail. I can be contacted at [REDACTED] to set up a discussion.

Yours sincerely,

Cc Translink