

**Submission  
No 5**

## **EMISSION FREE MODES OF PUBLIC TRANSPORT**

**Organisation:** Bus & Coach International Pty Ltd (trading as BCI)

**Date Received:** 27 June 2022

**Ref: Emission Free Modes of Public Transport Inquiry**

**Addressed to: NSW Legislative Assembly / Committee on Transport and Infrastructure**

In response to the NSW Legislative Assembly Committee on Transport and Infrastructure inquiry and report on the feasibility of emission free modes of public transport in the long term, Bus & Coach International Pty Ltd (BCI), as an independent and major Australian owned bus manufacturer, state:

a) The Capacity and Capability to provide emission free modes of public transport

BCI have designed, developed and supported complete Bus models in accordance with global industry best practice in Australia, New Zealand and other international markets, with a total of more than 2,200 units delivered to the Australian market since 1991. We can provide abundant testimonies of our more than 600 Australian customers to confirm our capability to design, develop and support their buses.

BCI are a global manufacturer and therefore build to the required standards for the country and the Public Supply contracts. BCI Factory currently builds for the following countries: Australia, New Zealand, UK, Canada, USA, European Union, Hong Kong, Singapore & Israel. The factory is ISO accredited and has the latest ISO 9001: 2015 standard Certificate. The factory currently has COP certificates for Australia (issued by DOTARS) and UK and Europe issued by VCA.

BCI have the adequate organization, processes in place, consistent structure and a team of experienced professionals with extensive years of work at the Bus Industry, specialized in technical and commercial areas related to this business, with proven skills and knowledge to ensure a supply contract of this nature will be managed to the best expected outcome.

BCI have recently incorporated to their range the emission free vehicles, the battery-operated electric (BEB) and also hydrogen fuel cell electric (FCEB) buses, in urban low-floor and coach configurations. In 2020, Transport for NSW included BCI as one of the approved Zero Emissions buses suppliers for Panel#3. Only 4 manufacturers were included, being BCI one of them with our Citirider E, which is a 12 m low-floor urban BEB. Since then, a number of these electric city buses have been ordered and delivered to an Australian client in NSW, dedicated to public transport and are now operational in Sydney metro. Besides, a 9 m shorter version of our BEB is now being tested a local operator. Different BEB coach models have been already engineered and are currently in production for distribution in Australia by end of 2022.

Based on the engineering principles similarities between BEB and FCEB, and with the accumulated experience of an excess of 1,000 hydrogen buses deployed overseas by our engineering partner, the international engine supplier Weichai, a number of projects referred to hydrogen buses, are currently

being presented to different public entities and companies in Victoria, Queensland and Western Australia. The Australian public started to have interest in this technology very recently and there has not yet been an opportunity to confirm an order, complete the build and deliver our first prototype in Australia, although we're confident this event may take place in 2022/23, considering the growing demand for this avant-garde type of bus

BCI can then confirm that we have the Capacity and Capability to provide ADR compliant emission free buses (BEB & FCEB), as per Australian standards and clients requirements, with the appropriate Quality necessary to tailor, fulfil and excel the customer's expectations for this type of public transport vehicle within a reasonable supply timeframe considering our factory potential to absorb the manufacturing, testing and supplying of a zero emission buses volume within a swift timeline in order to ensure Goods are delivered and commissioned timely to satisfy customer's expectations.

b) Benefits and Costs to taxpayers

The Supply of Emission Free buses to NSW will certainly enhance the sustainability and efficiency of the NSW bus public services, stimulating the development of similar proposals by local contractors contributing to transform the Transport Industry and Marketplace in a beneficial way for the community, which includes the adaptation of local facilities to accommodate vehicles driven by new technologies.

The supply of ZE buses is, in itself, an innovative and sustainable contribution to the community and economy, in order to enhance a new way of transporting public and contributing to the development of a cleaner and safer technology, that may also require the evolution of local businesses to adapt to this change of circumstances.

On the other hand, the upfront capital cost of this type of vehicles, considering their current market pricing, is more expensive compared to diesel buses. This might become a problem for local communities until the natural evolution of the products make them a more affordable transport solution in the years to come. However, the running cost of the zero emission buses is actually a lot less than diesel, so in the end, the total cost of ownership is about the same.

Additionally, the bus depots infrastructures must be adapted to accommodate this new technology, enhancing the power supply and eventually forcing the authorities to install emergency battery chargers at public domain to allow on-route recharge when it is not possible to return to the operators' yard to conduct this operation.

All these circumstances may force budgeting to be prioritized above the best interest for the local community, when their financial capacity isn't sufficient to sustain these necessary investments.

c) Opportunities and Impact to Local Manufacturing Operations

There is an opportunity for Local NSW Manufacturers to be part of our supply chain and play an important role in the supply of the emission free buses. As an option, the install and fitment of certain bus components may be sub-contracted to NSW suppliers.

A Contract for the eventual supply of Emission Free buses to NSW will certainly create opportunities for NSW SMEs to gain further understanding of these new technologies and develop their staff skills through our Training Program, in cooperation with BCI as the manufacturer and the local TAFE entities.

These Zeo Emission buses operation and maintenance will require local staff to be appropriately trained and educated to be able to handle safe and efficiently the new vehicles. Therefore, a whole new set of skills, particularly for High Voltage Auto Electricians, shall be necessary.

The incorporation of trainees or apprentices, other than the regular ones currently working in our facilities, may be also necessary considering the supply volume, therefore it could be a good decision to encourage young local Auto Electricians to specialize in this new technology through TAFE Courses to offer them better job opportunities in the future.

These buses supply shall need the support of local companies during pre-delivery stage and once the buses have been delivered, for their maintenance and operations. BCI will certainly discuss with local subcontractors to understand which ones will be adding value to our proposal to incorporate them and contribute to the local development / innovation. Depending on the vehicles requirements, once an eventual Supply Contract starts, we shall consider the opportunity to commission or service buses locally as much as possible.

- d) Other jurisdictions that have emission free modes of public transport

At this stage (June 2022), BCI have only delivered zero emission buses to the NSW local market in Australia.

- e) Any other related matters