EMISSION FREE MODES OF PUBLIC TRANSPORT

VOLGREN
A Marcopolo Company

Volgren Australia Pty Ltd (Volgren)is pleased to provide the following response to the NSW Government Legislative Assembly Committee on Transport and Infrastructure supplementary questions for Witnesses

1. What can the NSW Government do to ensure that local manufacturers are involved in all stages of the bus manufacturing supply chain?

Having a clear insight into the current bus manufacturing supply chain will assist in the members to better understand our response.

A complete bus can be built either as an integral (all in one solution) or a chassis body combination. In Australia the vast majority of buses sold are of a chassis body combination type. In 2021 there were 1,041(1) buses documented as sold in Australia, this covering all types of buses from city buses, school buses through to coaches except for minibuses (24 or less seats) which are not recorded in the bus sales statistics.

To break these sales down further, of the 1,041 buses sold, 611 of them had their body built wholly here in Australia or over 60% of the market, the remainder were either full imported or imported partially built from predominately China and when it comes to city buses this percentage increase to 85% local body assembly.

Regarding the chassis, of the 1041 units sold there were a total of only 15 units that were built in Australia the remainder were fully imported, mainly from the European leading bus chassis manufacturers.

It should also be noted that regardless of the whether it is a diesel or zero emission bus there are certain components of a chassis that local chassis/bus manufacturers will need to import, as they are specialised components and as volumes in Australia are minimal, making them locally untenable, these components being engine/motor, axle's, brake, and steering systems, HV batteries to name a few, So 100% local content on the chassis/integral bus is not achievable.

To address the question on how NSW Government can best ensure local manufacturers are engaged in all stages of the manufacturing process, or how the local content of the buses can be increased and without the full definition of what is meant by "local" i.e., NSW or ANZ, Volgren can provide the following points

- Our existing Volgren bus body contains close to 90% Australian content (2), and we currently directly employ more than 350 FTE in Australia and engage with over 100 local Australian businesses in our supply chain of which nearly 60% are SME's.

  Volgren actively seek to increase our local content percentage, we are faced with several obstacles that limit this; the first being the low volume of the Australian market combined with custom/specialised requirements of a bus means it is not viable for a local manufacturer to produce the component and the other obstacle is cost and the need to remain competitively priced in the market.

- While Volgren is not a chassis manufacturer, we believe that based on the data the biggest opportunity of increasing local industry involvement is by encouraging the chassis manufacturers to assemble here in Australia, this would provide job opportunities in the assembly of the chassis and while initially the proportion of imported materials will be high, over time the local content would increase as materials/components are local sourced. Additionally with the current shipping costs any reduction in the shipping mass could compensate for the additional cost of the local sourcing.

- Finally consistent volumes and forward understanding of requirements will assist body builders to increase their local content and engage with more local suppliers as knowing future volumes allows us to negotiate with and raise interest from the supplier base. To give an example the following are the city bus orders for NSW[1] over the last 5 years:

2017	2018	2019	2020	2021
189	313	297	174	63

This inconsistency in numbers affects our ability to employ and retain staff and engage with local suppliers over the long term.

While this inconsistency is not confined to the NSW market, we do receive volume outlooks from other states agencies which allows for planning.

(1) ABC magazine bus deliveries statistics

(2) Audited by ICN

2. As a manufacturer with operations in Asia, what can NSW learn from Asian jurisdictions about the construction and procurement of low emission buses?

The main feed back we can provide to NSW regarding how the Asian markets are approaching the introduction of Zero Emission Buses (ZEB) in the form of Battery Electric Buses (BEB) or Fuel Cell Electric Buses (FCEB) is that the introduction should be a gradual and informed approach, with the grid and infrastructure constraints needing to be resolved prior to going full steam ahead with 100% ZEB procurement.

Outside of China, most markets are either trialling or purchasing smaller volumes of ZEB to obtain an understanding of this fairly new technology, including the charge requirements, range, reliability, climatic conditions effect on range etc.

Additionally, and like here in Australia they too are facing grid capacity issues which is limiting the uptake of BEB, or lack of Hydrogen fuel or refuellers restricting FCEB introductions.

Volgren appreciates NSW government interest and approach to the implementation of ZEB into your market and are happy to provide further clarifications or questions should they arise.

Best regards

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