Subject: LMM 23/02/2021 - Build Them Here – BusTech Electric bus technology

MOTION

That City of Newcastle:

- Welcomes the NSW Government's decision to designate Australian-based electric bus manufacturer BusTech Group as an official supplier, in support of its aim to decarbonise the NSW bus fleet by 2030. The NSW Government has committed to buying 120 new electric buses in 2021, and converting all 8,000 NSW Government buses to electric by 2030.
- 2. Notes that BusTech, currently based in Queensland, is seeking a manufacturing facility in NSW, and notes that 95% of BusTech's supply chain is based in Australia, providing opportunities for locals.
- 3. Notes Newcastle's long history as a manufacturing hub, specialisation in advanced manufacturing, clean tech credentials in batteries and renewable energy, and traditional energy, and connection to the CSIRO Energy Centre and University of Newcastle, which has just become NSW's hydrogen hub
- 4. Writes to BusTech Chairman Christian Reynolds, and Chief Executive Officer Thinus Steyn, inviting them to meet to discuss their product, and opportunity to locate their NSW manufacturing facility in Greater Newcastle

BACKGROUND:

Electric bus maker BusTech plans NSW factory to meet state demand

FEBRUARY 19, 2021 JAMES FERNYHOUGH



Electric bus maker BusTech Group says it will open a factory in NSW – its fourth in Australia – after the NSW government made the company an official supplier in its move to completely decarbonise its bus fleet by 2030.

Bus operators in NSW, contracted to the state government, had already put in orders for its ZDI buses, the company said, though it would not say how many.

BusTech, which also makes traditional diesel and hybrid buses, currently builds electric buses at factories in South Australia, Queensland and Tasmania.

Company spokesperson Maria Fedele said the only significant component of its electric buses made overseas was the battery, which is made by US firm Proterra and has 420kwh of useable energy. Almost everything else is sourced locally, she said.

She would not reveal how much it costs to buy one BusTech's buses, or how they compared with the cost of local competitors that source a higher number of parts from overseas.

But the company was eager to stress the economic and environmental benefits of its "made in Australia" credentials, which it hopes will override any increase in expense.

"We use a supply chain that is over 95 per cent located in Australia," said Kasia Pitman, the company's director of sustainability. "This not only creates economic benefits and generates employment opportunities, but also ensuresthe lowest carbon emissions manufacturing footprint of any bus available in Australia."

BusTech joins BCI, Yutong, Nexport BYD Gemilang and Nexport BYD Volgren as certified suppliers of electric buses to the NSW government.

Late last year, the NSW government announced it would put 120 electric buses on the road, 50 of which would be in Sydney with the remainder yet to be allocated a location.

"I want to scale up our efforts towards tackling climate change, so I am challenging Transport for NSW to aim for my goal of electrifying the state's entire bus fleet by 2030," transport minister Andrew Constance said at the time.

"I am excited to see us one step closer to our vision of creating a greener, cleaner and healthier future for the people of NSW, with more people now able to enjoy our electric bus fleet right across Sydney."

Other states are also phasing in electric buses. South Australia plans to completely electrify its bus fleet by the 2030s, while Victorian is currently trialling electric buses with a view to fully electrifying its bus fleet.

BusTech Group's electric bus announced as first panel #3 approved Australian vehicle for NSW.

By BusTech Group 19 February 2021

BREAKING: BusTech Group confirmed as the only Australian bus company locally manufacturing zero-emission buses for the NSW market.

BusTech Group's ZDi electric bus has been designed, engineered and built in Australia to accelerate the future of clean, efficient and emission-free transport solutions for NSW and Australia while also harnessing domestic capabilities.

PAGE 2 OF 6

"Our admission to the NSW procurement panel reaffirms the Group's commitment to delivering the next generation of zero-emission connected transit for the NSW market, giving a real choice for domestic product versus international import models," says Christian Reynolds, Executive Chairman of BusTech Group.



THE FUTURE OF CLEAN, EFFICIENT PUBLIC TRANSPORT

The transport sector is currently the second largest and fastest growing emitter of greenhouse gas emissions in NSW and Australia.

To combat this acceleration, the NSW government recently committed to transition its entire bus fleet to zero emissions within the decade, starting with 120 electric buses in 2021, and ultimately planning to convert all 8,000 buses in its fleet by 2030.

"BusTech Group supports the NSW government's initiative to transition to a fully zero emissions bus fleet. We are committed to creating a more sustainable environment and economy by delivering the future of clean, efficient and emission-free public transport in NSW and Australia more broadly," says Kasia Pitman, Director of Sustainability at BusTech Group.

ALL ELECTRIC ZDI BUS

Through a strategic engineering and supply partnership with Proterra, the leading battery and powertrain solution provider in the US, BusTech Group has developed an all-electric ZDi 12.5-meter transit bus. This innovative, modern solution offers 5 industry leading features:

1. Industry leading energy efficiency

BusTech Group's ZDi bus offers the highest stored energy of any bus on the Australian market, delivering 450 kwH of stored energy.

"The all-electric ZDi's battery pack provides over 420kwh of useable energy, enabling maximum range before requiring a recharge. This provides operators flexibility in both operational use and

charging strategy, whilst also addressing Australia's extreme weather conditions," says Gregg Dinning, Chief Technical Officer at BusTech Group.

2. Industry leading energy density

BusTech Group's ZDi bus offers the highest energy density battery pack. This means more stored energy in every kilogram of battery pack, and more range without compromising on passenger capacity.

Large energy storage allows the Group to provide flexibility to its customers on charging strategies. Recognising the operational challenges if all buses need charging at the same time, this model reduces the need to charge all buses each day, ultimately cutting down the real-estate impact of a low battery capacity vehicle by reducing the number of required chargers.

3. Industry leading value for money

BusTech Group's ZDi bus offers the highest value for money with the lowest cost per kilowatt hour of useable energy, providing the lowest cost per kilometre of operation.

"Ultimately, our advanced solution provides the NSW market with the most energy-dense and industry-leading zero-emission bus platform on the Australian market, while also ensuring the lowest possible cost per kilometre, giving both value for money in a capital purchase and also in day-to-day operations," adds Gregg.



4. Industry leading standards

BusTech Group offers the highest standards in compliance and safety with the best battery performance warranty in Australia through both guaranteed replacement life and minimising battery health degradation whilst in service.

The Proterra-powered battery packs have undergone extensive testing to meet the highest safety standards and are designed specifically for safe operation in heavy duty transport.

"For example, our Proterra-powered batteries have an armoured coating which minimises the likelihood of damage from regular occurrences such as road furniture strikes or sudden impacts. The ZDi is also engineered for a 25-year lifecycle and can adopt future battery technology upgrades without the need for structural modifications," says Christian.

5. Industry leading Australian content

BusTech Group manufactures buses with the highest local content of any bus available in Australia. The Group recognises the importance of sovereign capability and are passionate about sourcing local supply chains and empowering local SME's.

"We use a supply chain that is over 95% located in Australia; this not only creates economic benefits and generates employment opportunities, but also ensures the lowest carbon emissions manufacturing footprint of any bus available in Australia," says Kasia.

BusTech Group has also commenced development of an NSW-based manufacturing facility, which will focus on zero-emissions technology buses for Sydney and wider NSW markets, creating further jobs and increasing economic value for Australia.

Production of BusTech Group's electric buses will commence in NSW in 2021, providing the first facility in Australia focused on zero emission buses.



BEYOND THE ELECTRIC BUS

In addition to the 60 confirmed orders for its electric ZDi bus, BusTech Group has plans to expand beyond electric buses, ultimately creating a fully electric mass mobility ecosystem, including scalable commercial vehicles.

"We're motivated not only by the emission reduction benefits of sustainable multimodal solutions, but also the cost reductions for our customers over the life of the vehicle. Be it buses or commercial vehicles, our solutions aim to benefit public health, the economy and employment

opportunities in Australia through local manufacturing, leveraging the capabilities and capacity within the Australian market," says Christian.

ABOUT BUSTECH GROUP

BusTech Group is an Australian bus group designed for a connected world – delivering integrated, low-emission mass mobility solutions enabled by technology.

Our buses are designed, built and manufactured in Australia to the specific needs of our customers.

With an emphasis on sovereign capacity and mutually beneficial local supplier partnerships, we operate a micro factory model that drives local economic growth whilst reducing our environmental footprint.

We believe the future of mass transit is a connected ecosystem with buses at the heart; and we are committed to enabling the next generation of connected transit.

www.bustechgroup.com.au