

**Submission
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EMISSION FREE MODES OF PUBLIC TRANSPORT

Organisation: Australian Rail, Tram and Bus Industry Union (NSW Branch)

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Rail, Tram & Bus Union

(NSW Branch)

LEGISLATIVE COUNCIL

Committee of Transport and Infrastructure

Inquiry into Emission Free Modes of Public Transport

SUBMISSION OF THE RAIL, TRAM AND BUS INDUSTRY UNION

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ORGANISING WORKERS IN THE TRANSPORT INDUSTRY
PROTECTING AND BUILDING RIGHTS AT WORK

Summary

The Australian Rail, Tram and Bus Industry Union (NSW Branch), (**RTBU**) is an industrial union representing workers in those sectors, regardless of occupation. The union has a proud history extending over 160 years representing our members to ensure safe workplaces and fair working conditions across one of the largest public transport systems in the world.

The COVID-19 pandemic has shifted the way in which commuters in NSW travel. Many now opt for what are seen as more COVID-Safe options such as cars or cycling.

This has made the bus network relatively quiet compared to its pre-COVID standards.

The RTBU welcomes the establishment of this inquiry and the NSW government's commitment to transition the bus fleet to be sustainably powered.

The overall movement toward and implementation of this infrastructure transition has the potential to benefit commuters and NSW more broadly in the following ways:

- Reduction in Co2 pollution from the current diesel-powered fleet as well as the reduction of noise pollution in many residential areas – presenting a much cleaner, quieter, and inviting image for public transport in NSW.
- Investment in construction and maintenance facilities to build the next generation of vehicles

Such investments in the existing workforce through upskilling, as well as the potential for expansion of the workforce through the implementation of new technologies.

Technological developments and improvements will require investment in new infrastructure for things such as charging and battery technologies.

Economic benefits such as lifetime cost reduction in maintenance and recharging. While the initial investment is higher, the lifetime cost of electric buses far outweighs the current situation. Such activity will have a stimulatory effect on the State's economy, be it through direct public monies invested or through public-private partnership arrangements and will drive further productivity, employment and new opportunities to the people of NSW.

Overall air pollution will improve significantly, resulting in improved health of the drivers and depot staff who work around these vehicles during their shifts.

Potential issues borne of early experience include the attempt to reduce work for Yard staff by moving the recharging duties onto drivers, poorly designed recharging facilities, and inadequate safety measures included in new infrastructure.

It is the RTBU's submission that the implementation of this scheme, if done correctly, not only has environmental benefits for the state but also has the benefit of boosting confidence in the transport infrastructure and its workforce. While potential outcomes of this action include increased use of these essential services, It must not come at the expense of workers or a genuine commitment to safety.

In addition to this, the RTBU submits it will serve to protect the current and future workforce within the bus network through the reduction in air pollution as well as investment in the workforce and upskilling to meet infrastructure demand.

Air Pollution

One of the key differences between the current fleet of combustion engine-based buses and the proposed electric fleet is emissions. With roughly 20 percent of Co2 emissions coming from the transport sector and roughly 16,500 bus/ coach drivers in NSW, the move away from fossil fuelled technologies is crucial for both public and private operators address.

For the workforce the move to emission free buses (ZEB's) would alleviate health concerns stemming from long term exposure to diesel fumes. Diesel fumes can contain up to 10 times the number of soot (black carbon) particles found in petrol exhaust fumes – meaning that depot and bus operators are exposed to harmful dangers on a regular basis on the job.

These dangers include cancer, but they can also include further cardiovascular issues. As it stands currently, the majority (almost 80 percent) of the NSW bus fleet runs on diesel power. A delayed or slow roll out of this scheme could see a potential further risk to worker health which could be avoided through increased investment in the scheme.

In addition to diesel emission, there are concerns drivers are more likely to be exposed to black carbon and other dangerous particles that can build up in the cabin. This isn't just a worker concern this is a passenger safety concern, even with low level emissions.

Being exposed to dangerous emissions bus drivers work in an environment that would not be acceptable if workers were exposed to dangerous fumes in an office.

The RTBU commends the NSW government on the implementation of this scheme but argues that more can be done to ensure workers are not exposed to combustion related emissions.

Noise Pollution

Carbon pollutants and diesel particulates are not the only types of emissions that are a product of fleet operations. Noise pollution is also a major issue with the diesel fleet.

Emissions-reduced buses have the added benefit in conjunction with their low pollution output of being low emitters of noise. This is even more of an issue on small suburban streets than in metropolitan areas.

The current fleet of diesel fuelled buses can produce up to 80 decibels of noise which is well above the suburb average. De-carbonising the bus fleet by transitioning away from internal combustion engines provides for enhanced opportunities to significantly reduce environmental impacts and noise output of the fleet.

It is currently the case that engine idle times are imposed in certain locations, which while addressing immediate noise generation, means that air conditioning cannot run on a summer day between trips. Buses heat up quickly in direct sunlight and must be able to have elderly passengers travel in safety. This could be addressed by vehicles that remove the noise consideration allowing for air conditioning to function as intended.

Implementing the ZEB's at an accelerated rate would alleviate the noise pollution heard in suburban areas much earlier than the current NSW governments plans. This also has the benefit for workers by being exposed to engine noise for a much smaller amount of time.

Workforce Retention and Expansion

Unlike transitions to new technologies in other industries which often see job losses, this transition provides the opportunity for the existing workers to broaden their skills and retain their jobs.

It also allows for hiring of people with knowledge and expertise in the renewable sector thereby broadening the industry expertise.

Changing the current transport infrastructure for buses has the potential to also result in a significant ramp up in bus manufacturing in Australia. Currently the majority of the ZEB's are built in China. An increase in demand for these vehicles would see the need for domestic production, leading to an industry expansion and with that an increase in jobs both in manufacturing and in maintenance.

In addition to the manufacturing requirements, there will be a significant need for depot staff to be trained and ready for this transition. Because ZEB's have a lower range and slower recharge time than their carbon producing counterparts there will be a significant emphasis on the efficiency of recharging at depots, requiring that depot workers be adequately trained to be able to cope with this change in operations, ideally before the arrival of the bulk of the replacement fleet in 2023-24.

Overall, while there must be a recognition of the need for staff to be trained adequately in all areas of the new fleet operations, this should not be used as a screen to pursue efficiencies prematurely.

The new technologies used will completely revolutionise the current depot infrastructure, which has advantages and challenges. However, the RTBU submits that these changes will be to the overall benefit of both TfNSW and the workforce. This is driven largely by the innovative methodology that has been applied in maximising the efficiency of charging at depots for being designed to be easy for the workforce operate and efficient in grid charging

Without the cooperation of the workers, in both training and the operations of the new fleet of buses there will be a significant degree of stress on the network, particularly the human element. To that end, the RTBU submits that the workers should be brought along and informed of the progress of this scheme so as to ensure the scheme's full success.

Project Synergy

It was first floated by the RTBU that the Government invest in the installation of solar panels on depots about 3 years ago. At the time this was not considered, but in situ observations made overseas did flag a change in approach by the then Minister Constance.

While this project was never developed, there exists a potential to maximise the positive environmental impacts the use of ZEB's can deliver. By creating a genuine clean energy source as opposed to traditionally generated energy, a far greater efficiency and result can be delivered.

Green buses powered by renewable energy sources would deliver financial, environmental and political benefits. While it may be that earlier contemplation of solar infrastructure was premature, coupled with a paradigm altering fleet change it would seem obvious in its potential benefit.

Conclusion

The NSW governments scheme for the transition from diesel to electric powered buses will ensure that not only commuters but workers in NSW reap the benefits, provided workers are not left behind.

The move away from carbon emitting vehicles to emissions-free options will be a literal "breathe of fresh air" for commuters and workers alike.

The significant noise reduction aspects will be well received by NSW residents.

With the qualification that the project is not used to disadvantage workers, the RTBU commends initiatives that will address first-hand emission reductions together with supporting Australia's international treaty obligations to meet global Co2 reduction targets.

Alex Claassens

ARTBIU Secretary NSW Branch

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