

**Submission
No 15**

**ELECTRIC BUSES IN REGIONAL AND METROPOLITAN PUBLIC
TRANSPORT NETWORKS IN NSW**

Organisation: Vision Australia

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**Vision Australia Submission to
NSW Government Electric Buses Inquiry**

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Introduction

Vision Australia is providing this short submission to the NSW Government's inquiry into Electric Buses in Regional and Metropolitan Public Transport Networks in order to draw attention to our significant concern about the potential impact on the safety of people who are blind or have low vision that these buses will have unless pre-emptive action is taken. We also highlight the opportunity that the introduction of electric buses provides to improve the accessibility of this mode of public transport.

Buses continue to be the least accessible form of public transport for people who are blind or have low vision. This is mainly because locating the correct bus, and identifying the desired destination, both present significant challenges that have not been solved by technological advances or developments in accessibility policies and standards. The introduction of electric buses provides an opportunity to address these challenges in innovative ways. But at the same time, electric buses will introduce new challenges for people who are blind or have low vision unless decisive and pre-emptive action is taken. We are particularly concerned that the safety of pedestrians who are blind or have low vision will be severely compromised if minimum noise levels are not enforced through the installation of Acoustic Vehicle Alerting Systems (AVAS) on all electric buses, so that their proximity is audible and can be detected by people who are blind or have low vision.

Locating the correct bus

The complexity of public transport infrastructure has increased exponentially over the past 25 years or so. It is now rare to have a bus stop used by only one or two bus routes, particularly in urban areas. Multiple bus routes are routinely serviced by the same stops, and passengers must identify approaching buses based on the route they wish to travel on. Buses are often parked in a line, and there is usually not much time to for a person who is not able to read the visual signage on the buses to interrogate drivers and passengers until the bus they want is located. Moreover, transport interchanges and multi-route bus stops are usually located in high-traffic, noisy areas, and it can be difficult or impossible even to know if and where a bus is stopped, let alone identify one particular bus out of several.

Newer bus stops can be equipped with technology that announces the routes serviced by that stop when a button is pressed. We recommend that all bus stops used by electric buses are (retro) fitted with this technology. However, while this technology is extremely useful, it does not offer a solution to the problem of identifying one out of a number of buses that are parked at the stop at the same time. We think that there is scope for investigating a solution involving Bluetooth or similar technology that would allow each bus to transmit identifying and location information to an app, which a person who is blind or has low vision would use on

their smartphone to assist them find the bus they wanted.

Such an approach would obviously not be a solution for those people who do not have smartphones (especially those in older age groups where smartphone usage rates are low), but for the increasing numbers of people who do use smartphone apps to enhance their independence and social participation. This approach could provide an effective solution to an otherwise intractable and significant problem.

Identifying the correct destination

For as long as there have been buses, people who are blind or have low vision have relied on the driver or other passengers to alert them when the bus has reached their stop. This strategy has become much less effective: bus drivers are often more physically separated from passengers, especially in newer buses, so it can be difficult to communicate directly with them. Urban environments and traffic flows have become more complex to navigate, occupying more of a driver's concentrated attention and thereby increasing the likelihood that the bus driver will forget to alert a passenger who is blind or has low vision to an upcoming stop. We have heard from many clients that they have not been alerted to their bus stop and have been carried on to an unfamiliar stop, sometimes quite a distance away, resulting in considerable inconvenience and stress.

The Disability standards for Accessible Public Transport require that all passengers be provided with accurate information about the location. One way of doing this is to provide automated (or at least regular and predictable) announcements about recent and upcoming stops. It is no longer regarded as acceptable to be compelled to rely on drivers or passengers for this information. Newer buses have technology to provide automated audio announcements, although older ones do not. Our experience is that when automated announcements are not available, relying on drivers to make announcements about the location of the bus leads to inconsistent and unpredictable results that are often of little practical value.

We recommend that all electric buses be required to have technology that allows automated audio about the location of the bus, including recent and upcoming stops, to be made without the intervention of the bus driver.

Impact of electric buses on safety

In 2018 Vision Australia commissioned research by Monash University's Accident Research Centre into the impact of electric/hybrid vehicles and bicycles on the safety of pedestrians who are blind or have low vision. A key finding from this research was that 35% of people who are blind or have low vision have experienced a collision or near-collision with an electric/hybrid vehicle. Further, 75% indicated that the

introduction of these vehicles has reduced their confidence to walk and cross roads, because they no longer feel safe.

Electric vehicles are near-silent, and so cannot be detected audibly. People who are blind or have low vision rely on audible cues such as traffic noise for orientation and determining when it is safe to cross a road. Without such cues, crossing a road can be dangerous, because it is easy to walk straight in front of a silent electric vehicle without knowing it is there, giving the driver no time to avoid a collision.

The US and Europe have introduced standards that require all electric/hybrid vehicles to be fitted with Acoustic Vehicle Alert Systems (AVAS) so that they emit detectable levels of noise. This makes it possible for people who are blind or have low vision to detect these vehicles in much the same way that they detect traditional, petrol- and diesel-powered vehicles.

Vision Australia has met on several occasions with Federal MPs and also with senior staff in the Department of Infrastructure, Regional Development and Cities. We have received assurances that minimal noise levels achieved via AVAS will be required of all electric/hybrid vehicles entering the Australian market in the future.

We therefore believe that it is absolutely imperative for all electric buses to have Acoustic Vehicle Alerting Systems. If this is not done, we expect there would be a significant public backlash from the blindness and low vision sector, who would obviously be very concerned about a systemic failure to protect their right to safety and security when travelling in the community.

Conclusion

Vision Australia is most willing to meet with the Committee to clarify any of the issues we have raised above, and to answer any questions that the Committee may have. We support the introduction of electric buses as being consistent with principles of environmental sustainability and technological innovation. However, we stress that electric buses must be introduced in a way that benefits the entire community, including people who are blind or have low vision.

About Vision Australia

Vision Australia is the largest national provider of services to people who are blind, deafblind, or have low vision in Australia. We are formed through the merger of several of

Australia's most respected and experienced blindness and low vision agencies, celebrating our 150th year of operation in 2017.

Our vision is that people who are blind, deafblind, or have low vision will increasingly be able to choose to participate fully in every facet of community life. To help realise this goal, we provide high-quality services to the community of people who are blind, have low vision, are deafblind or have a print disability, and their families.

Vision Australia service delivery areas include: registered provider of specialist supports for the NDIS and My Aged Care Aids and Equipment, Assistive/Adaptive Technology training and support,

Seeing Eye Dogs, National Library Services, Early childhood and education services, and Feelix Library for 0-7 year olds, employment services, production of alternate formats, Vision Australia Radio network, and national partnership with Radio for the Print Handicapped Spectacles Program for the NSW Government Advocacy and Engagement. We also work collaboratively with Government, businesses and the community to eliminate the barriers our clients face in making life choices and fully exercising rights as Australian citizens.

Vision Australia has unrivalled knowledge and experience through constant interaction with clients and their families, of whom we provide services to more than 26,000 people each year, and also through the direct involvement of people who are blind or have low vision at all levels of our organisation. Vision Australia is well placed to advise governments, business and the community on challenges faced by people who are blind or have low vision fully participating in community life.

We have a vibrant Client Reference Group, with people who are blind or have low vision representing the voice and needs of clients of our organisation to the board and management.

Vision Australia is also a significant employer of people who are blind or have low vision, with 15% of total staff having vision impairment. Vision Australia also has a Memorandum of Understanding with, and provides funds to, Blind Citizens Australia, to strengthen the voice of the blind community.