



June 6, 2024

The Honorable Carolyn Walsh
Chair
National Transport Commission
Level 3, 600 Bourke Street
MELBOURNE VIC 3000

**Re: Automated Vehicle Safety Law (AVSL) Regulatory Framework Proposal
Request for Comments**

Dear Chairwoman Walsh:

Plus appreciates the opportunity to provide comments on the proposed regulatory framework that the National Transport Commission is pursuing to meet the requirements of the Automated Vehicle Safety Law established by Australia's Transport Ministers.

Founded in 2016 and headquartered in California, Plus is developing AI-based autonomous driving software designed to solve the driving intelligence problem.. The company offers a suite of software solutions for all levels of autonomy which range from driver-in to driver-out applications. We are currently deploying our autonomous driving technology with vehicle manufacturers in the U.S. and Europe.

In August 2023, Plus was proud to announce its partnership with Transurban, a global leader in road operations headquartered in Australia, to explore how Plus's Level 4 autonomous driving technology, combined with smart road infrastructure, could help make trucking safer, more efficient, and more sustainable in Australia.

As we continue to see the growth of these new safety technologies, it would be helpful to achieve their safe integration onto Australia's national roadways to operate under a commonwealth-wide framework. A uniform set of regulations will go a long way to demonstrating to the public how beneficial this technology can be and the increased safety they can provide.

RESPONSES:

(1) What are the benefits and drawbacks of different corporate presence requirements?

The development of autonomous vehicle technologies is an international endeavor. It is important not to limit the potential options that would be available to the public. As an international company that is registered to do business in Australia, we believe that this provides the greatest flexibility for regulatory governance and opportunities to provide the safest autonomous driving solutions.

(2) How would a requirement for the corporation to be an Australian registered company impact business models of potential ADSEs?

A requirement for an ADSE to be an Australian registered company would limit the number of developers willing to operate in Australia. As most developers are located outside of Australia, those willing to do business in the country would be required to partner with or license their product to an Australian based company or delay business in pursuit of an Australian business registration. This would have the effect of adding one more layer to the cost of the system and therefore increasing the cost to the end user.

(3) How suitable are the matters we propose to include in an ADSE's safety management system? Should other matters be considered?

The proposals for the safety management system are very comprehensive and no additional matters need to be added to this list.

(9) For how long should ADSEs be required to retain data? Should there be different periods for different types of information?

ADSEs should be required to retain certain data for no more than 1 year, provided that the data is not required beyond that for road traffic law enforcement, insurance claims, determining liability, investigation of safety incidents, and use in training machine learning models and offline software testing.

(11 – a.) How are companies using or planning to use remote operations as part of ADS deployment, and what business models are likely to be used? Which parties will have an influence on the safety of remote operation?

Plus currently does not utilize remote operation of our autonomous driving systems. There are ADS companies who elect to use remote operations to varying degrees, anywhere from full reliance on remote operations to partial, scenario-based intervention. There are challenges to be mindful of in remote operation of a vehicle, which can include: latency issues due to communication delays; delayed reaction times due to

context switch of the remote operator from other tasks, and for law enforcement; and ways to check that the remote operator is authorized to operate the vehicle whether it is related to their age, valid driver's license or any other driver related issues, and also that the remote operator is not impaired during its operation.

(15 – e.) Do you think there should be a requirement to always have a person capable of driving traveling in a vehicle with highly or fully automated features? Why or why not?

A vehicle with highly automated systems, such as an SAE Level 3 capable vehicle, would always require a human in the vehicle to take over, in case it encounters an event that it cannot handle.

A fully automated vehicle would not be required to have a human capable of driving in the vehicle while it is operating within its Operational Design Domain. The vehicles will be designed with redundant systems and safeguards to ensure they are able to safely operate without a human supervisor in the vehicle. The systems will be capable of handling scenarios within their Operational Design Domain; for edge cases and scenarios that put them outside of their ODD, the system would be programmed to safely perform a minimal risk maneuver.

As we are aiming to demonstrate with our L4 trucking partnership with Transurban, fully automated vehicles have the potential to transform the transportation industry by making it safer and more efficient. Regulations will play an important role in ensuring a safe and responsible role out of driver-out fully automated vehicles.

(15 – b.) In vehicles with higher levels of driving automation that are configured with manual driving controls, should there be specific requirements about seating position when the ADS is engaged? Do you support any of the options identified, or propose any other options?

With the higher levels of autonomy, such as Levels 4-5, in vehicles with manual controls, there should be no specific seating position requirements. However, in vehicles with no manual controls, seating arrangements would need to be tested for passenger protection in the event of a crash. Regulations governing this could be obtained from existing safety requirements developed by other nations.

(15 – g.) How should non-dynamic driving task obligations be assigned or shared in vehicles with highly and fully automated driving features? Do you agree with our analysis?

The overall analysis outlined in the Human User or Occupant Obligations paper is fairly comprehensive. As suggested in the document, some non-dynamic driving task

obligations are critical to the safety of those in the vehicle and those external to it. Tasks such as ensuring seatbelts and child restraints are used properly are just a few examples. However, there are tasks that can be performed remotely in the higher levels of automation. As there may be no human occupants or ones who are incapacitated due to injury, these tasks could include, exchanging information in the event of a crash or interacting with law enforcement which can be handled through the vehicle and remote communications with the controlling entity. Some non-dynamic driving tasks may not be possible, such as rendering assistance other than notifying authorities that help is needed or not applicable to the vehicle involved.

Thank you again for the opportunity to provide these comments. As we continue to advance our autonomous driving systems, Plus will remain engaged as contributors to the dialogues and standards development essential to this process, as well as being reliable partners with the National Transport Commission on these issues.

Please direct any questions or communications regarding this comment to me at [email address removed].

Sincerely,

<Signature>

[contact name removed]

Vice President, Government Affairs and Public Policy

Plus