VOLVO

5th May 2026

Volvo Group Australia submission to

Productivity Commission's Inquiry into the Impacts of Heavy Vehicle Reform

- Interim report

For more information, please contact

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5th May 2026

Impact of heavy vehicle reform
Productivity Commission
Martin Stokie, Commissioner
Barry Sterland PSM, Commissioner

Submitted via online form

Dear Commissioners,

Volvo Group Australia (Volvo) would firstly like to commend the Productivity Commission (PC) on its detailed work done to date and the recommendations proposed in its Interim Report. In particular, we would like to thank the PC for highlighting the important role heavy vehicle transport plays in the Australian economy and for calling out the concerning trend that productivity growth in this sector has stalled for over a decade.

Volvo shares the PC's optimism that new technologies including heavy zero emissions vehicles, automated permits, telematics and better utilisation of vehicle usage data can support productivity uplift if deployed well.

It is now critical however that the government and industry work together with increased focus, speed and collaboration to implement the proposed recommendations. We cannot afford yet another decade of continued productivity loss and unrealised benefits, nor for regulations, policies and systems to not keep pace with the accelerating technological advancements and increasing rate of change in our industry.

Please see below Volvo's responses to the PC's requests for information where we feel we have the expertise and/or experience to do so. For ease of reading, we have referenced the same headings and document numbers utilised in the Interim Report.

In addition to some our answers to the specific information requests, we have also added some further comments and additional information that may be of use.

We look forward to reading your Final Report, and to being part of the implementation phase that will hopefully follow soon after. Please do not hesitate to contact us if you have any questions or would like to discuss anything in our submission further.

Kind regards,

Vice President Public Affairs
Volvo Group Australia

Summary of Volvo Recommendations (VRs) included in this response -

VR 1: Include and align the non HVNL jurisdictions with national heavy vehicle regulations to achieve and benefit from true national harmonisation

VR 2: Increase the frequency of the HVNL review meetings

VR 3: Increase mass concession limits to 8.5t on the front axle, and 18.5t on the rear axles - inclusive of a floating 500kg between the two (i.e. 18t+18.5t or 8.5t + 18t) to enable new and future technologies

VR 4: Update the current equal load share legislation to allow variable load share

VR 5: Reinstate the Motor Vehicle Use (SMVU) survey by the ABS

VR 6: Commission a new independent dynamic pavement wear study

VR 7: Provide education and training to local government road managers and accessors when rolling out the new proposed NAAS. For example, on the relevant risk assessments conducted and benefits gained

VR 8: LGA road assessors to be required to provide substantial justification for their objection/s, and for a transparent consultancy period, in which applicants can respond, to occur.

VR 9: Include the option for chargers with the new Megawatt Charging System (MCS) standard at relevant heavy vehicle charging bays

VR 10: Apply a Total Cost of Ownership (TCO) lens to the productivity gains generated by the removal of curfews

Promote as-of-right access, along with flexibility and consistency

Volvo agrees with the PC's statements that the current road access settings do not support road managers to make optimal trade-offs between the benefits and costs of increasing access. Not only do current settings often act a roadblock to accessing the many productivity, financial and health gains, but also often increase costs and workloads due to unnecessary administrative burdens and lack of efficiencies.

Volvo supports the PC's recommendation to promote as-of-right access by expanding general access and notices, with regulatory settings that can be applied flexibly and consistently across jurisdictions. This statement applies to both internal combustion engine vehicles and new technology battery electric vehicles. To promote and enable consistency, it is imperative that the Australian Government play a coordinating role ensuring the cooperation and buy-in from all state and territory governments.

Importance of nation-wide consistency

Volvo cannot emphasise enough the importance of this consistency nation-wide. Current lack of consistency and differing regulations between the jurisdictions diminishes the available benefits and gains for many operators whose operations move across borders. Similarly, this consistency must also occur across LGAs as well.

Working with operators in NSW for example, whose normal routes pass through 15 to 20 different LGAs in a single shift, access permits today must be manually applied for to each individual LGA with differing feedback, results and response times. This not only adds additional costs and administrative work but also uncertainty to vehicle running costs and residual values - in turn affecting investment confidence and decision making.

It is not feasible or commonsense to have differing road access. Freight and logistics know no boarders, but differing access rules and regulations are artificially creating them.

Information request 2.1 - The PC is seeking feedback on how proposed reforms to the Heavy Vehicle (Mass, Dimension and Loading) National Regulation (expected to commence on 1 July 2026) will affect access. These reforms include uplifting General Mass Limits to Concessional Mass Limits, increasing general length limits from 19 m to 20 m and increasing general height limits from 4.3 m to 4.6 m.

>> What implications would these reforms have for high productivity and heavy zero emissions vehicles?

We do not currently see any negative implications of these reforms if done in line with the industry's current focus on safety. Volvo looks forward to the commencement of the reforms and the benefits they will deliver.

Specifically for our electric Volvo truck range, the additional length will provide greater flexibility for further weight optimisation. While it does not overcome the need for additional mass concessions as outlined in our responses to the PC, it does provide payload advantages and in some applications negates the need for permits in some instances.

Similarly, while uplifting General Mass Limits to Concessional Mass Limits helps raise the maximum payload of all vehicles, it is still not enough to close the competitive payload gap between BEV and ICE vehicles.

For our internal combustion ranges on all brands, and in particular Mack, the additional length would directly enable increased load capacities and therefore greater productivity.

Simplify PBS vehicle design approvals processes

Consistency across jurisdictions and LGAs

Volvo agrees with the PC's recommendation to promote as-of-right access by expanding general access and notices, with regulatory settings that can be applied flexibly and consistently across jurisdictions. This statement applies to both internal combustion engine vehicles and new technology battery electric vehicles.

Volvo also agrees with the PCs statement that the Australian Government can help play a coordinating role and, along with state and territory governments, work to embed a concessional mass limit in Heavy Vehicle National Regulation to ensure electric heavy zero emissions vehicles can operate across Heavy Vehicle National Law jurisdictions without significant payload disadvantages from battery-related weights.

Volvo recommendation 1: To include and align the non HVNL jurisdictions also with national heavy vehicle regulations in order to achieve and benefit from true national harmonisation.

Information Request 2.2 - The PC is seeking feedback on how the Performance-Based Standards (PBS) scheme can be improved and enable greater as-of-right access for PBS vehicles over time. We are also interested in views around how the Australian Government can best support this process

The PC is also seeking feedback on implementation issues, including how a pathway to add eligible PBS vehicles to existing notices (with in-principle road manager consent) could be embedded in legislation.

Volvo supports the PC's findings and recommendations captured in its Interim Report, and agrees that these will greatly increase productivity and reduce administrative burdens.

Having access to approved PBS configurations and published network maps and notices will greatly reduce the workload for both operators and OEMs alike and assist more operators to optimise their productivity.

Volvo recommendation 2: Increase the frequency of the HVNL review meetings

While Volvo appreciates the process and work that the NTC does to enact the HVNL and its related regulations, there is a need for there to be more than one annual review. If an increased frequency of scheduled meetings is not possible, at the very least there needs to be the ability to request an out of cycle meeting for urgent items.

This need is growing in importance due to the rapid pace technologies are now advancing and being introduced to deliver advantages related to key areas such as safety, environment and productivity.

Overcoming the 'payload penalty' for HZEVs in the longer term

The uptake of heavy zero emissions vehicles will be vital for Australia to benefit from technological change and deliver significant transport emissions reductions.

Information request 2.3 - How should a concessional mass limit to overcome the current payload gap between comparable diesel and electric HZEVs be implemented?

>> What should the size of the concessional mass limit be?

Volvo would like to commend the PC for accurately capturing the need to overcome the current payload penalty for electric heavy vehicles and its recommendation to increase concessional mass limits, with national consistency, which is critical as detailed above in our response.

Volvo recommendation 3: Increase mass concession limits to 8.5t on the front axle, and 18.5t on the rear axles – inclusive of a floating 500kg between the two (i.e. 18t + 18.5t or 8.5t + 18t) to enable new and future technologies.

While Volvo acknowledges that some operations and segments can be implemented successfully at lower axle weight changes, the abovementioned higher limits remove the current payload penalties and also enable the opportunity for the newest technologies, such as Volvo's new long range battery electric vehicle, and the benefits they bring.

Volvo Long Range Battery Electric Vehicle (BEV)

In April this year Volvo launched its new Volvo FH Aero Electric truck with extended range, capable of **driving up to 700km on a single charge** – a breakthrough for heavy electric trucks.

This new Volvo BEV is adapted to the new Megawatt Charging System (MCS) standard to charge its 8 onboard batteries from 20% to 80% in approximately 50 minutes. This is a gamechanger for the Australian freight industry –

- Enables charging to be done within the legislated rest period time for truck drivers
- Reduces the usage demand on currently limited charging infrastructure
- Provides productivity parity with diesel vehicles

While currently only available in a single trailer configuration, this new technology means trucks would be able to complete entire shifts on a single charge. Operationally, this could see long-distance operations performed with double and triple trailer internal combustion engine vehicles utilising low carbon liquid fuels, to then be swapped across to single trailer extended range BEV units for their final deliveries. For example, this could enable zero emission deliveries to supermarkets in metropolitan and regional centres where electromobility delivers its greatest benefits.

>> Are there any additional changes or approvals required to ensure operators can make use of the mass concession?

Volvo recommendation 4: Update the current equal load share legislation to allow variable load share

In addition to the increased concessional mass limits, this extended range BEV also requires a regulation change related to the current even (50%/50%) load share legislation. Volvo seeks for this to be changed to a variable (unequal) load share. This aligns with European regulations, and would therefore enable European axle configurations currently not possible in Australia.

When assessing this change, it is important to note that all vehicles that statically have even load share (i.e. when stationary on a weigh bridge), have variable (uneven) load share when in motion (being driven).

While assumptions can be made into what productivity (efficiency, financial and environmental) gains would be unlocked by the operation of this new extended range BEV, more data is required to conduct accurate and complete modelling. For example, what is the volume of single, double and triple trailer trucks today that operate the long-distance interstate routes? What is the number of single trailer trucks that operate 700km or more a day?

Volvo recommendation 5: The Motor Vehicle Use (SMVU) survey to be reinstated by the ABS

To assist with such modelling, Volvo recommends that the previous ABS Survey of Motor Vehicle Use (SMVU) be reinstated. Records show the last survey was conducted in June 2020, from which results are now very outdated not only due to the pace of industry and technology changes, but also the fact these results would have been impacted by Covid-19 lockdown operational changes.

>> Is a three-yearly review process appropriate? What benchmarks should be considered in the review process?

While Volvo is not averse to the idea of three-yearly review process being adopted, it does stress the importance of not introducing any cause for lack of certainty across the industry. For example, concern that increased mass concessions may be reversed in 3 years' time.

Regarding the common belief that battery weights may decrease in the future, Volvo would like to stress this is not a given scenario. Instead of decreasing weight, globally we are seeing and predicting that industry will likely focus on improved capacity and range instead. Australia is somewhat unique in its requirement for weight reductions, hence limited R&D being allocated to meet this demand globally.

Further, the higher mass concessions required for battery electric vehicles today will also be required for other new technologies in the future such as hydrogen fuel cell vehicles. **Higher mass concession limits should not be viewed as an interim solution but a long term one required for Australia to keep pace with current and further technical advancements.**

>> What are the expected impacts of applying the mass concession? What road wear impacts will this have at anticipated take up rates?

While heavier trucks will in many cases cause increased pavement wear, the impact is not as great as many are led to believe. There are also many cases where the heavier BEV trucks with road friendly suspension and/or wider tyres as examples, cause less pavement wear than their diesel equivalents without these features - but these trucks can legally operate on the roads today. While there are too many variables to provide an accurate percentage of how many older diesel trucks would fit into this category, it would be a fair assumption to say it would be significant.

When Volvo's technical experts conducted studies on pavement wear, they found there to be a number of variables that influence the amount of pavement wear caused. For example –

- Road profile i.e. less wear on smoother road profiles
- Tyre size i.e. BEV's wider tyres reduce road impact
- Vehicle suspension type i.e. road friendly front air suspension vs. leaf
- Measuring wear statically (stationary) vs. Dynamically (moving)

Volvo notes that the pavement wear studies conducted by Ausroads as an example, that while extremely comprehensive, drew conclusions only from static test results. Volvo's recent studies on the same BEV unit example used in this study revealed that pavement wear results varied significantly based on if the testing was done in a static or dynamic scenario. In this particular example -

- ➔ Pavement wear increased by 3% when looking at axles statically; while
- ➔ Pavement wear reduced by 11% when looking at them moving dynamically over pavement

This is an example of how studies can be misleading if viewed in isolation given trucks are predominantly moving when in operation.

Volvo recommendation 6: A new independent dynamic pavement wear study be conducted

Despite significant result differences, dynamic assessment approaches are not yet widely adopted across the industry outside of PBS assessments. Volvo therefore recommends a new independent study be commissioned to investigate the likely pavement wear caused by heavier BEVs when in motion (dynamically) – if deemed to be required.

It is important to note however that time is of critical importance, and the industry cannot afford to wait years for such a study to be conducted. If needed, it must be done with urgency.

Accelerating a National Automated Access System

Volvo agrees with the PCs findings that the current permit application process is not fit for purpose and is slow, unpredictable, and inconsistent across jurisdictions. We agree fully that there is a need to reform the system to promote flexibility, timeliness, consistency and quality of access decisions.

Volvo supports the PCs Draft Recommendation 3.1 that the National Automated Access System should be designed to provide network-based access rather than automating access for prescriptive routes, and also that this system and approach should be adopted nation-wide to again support national harmonisation of regulations and access rights.

Information request 3.1

The PC is seeking evidence and views about how the National Automated Access System can be designed to improve the consistency and quality of local governments' access decisions. Is guidance and improved road asset data adequate, or are broader reforms needed to optimise decision making by local governments?

Volvo recommendation 7: To also provide education and training to local government road managers and accessors when rolling out the new proposed NAAS. For example, on the relevant risk assessments conducted and benefits gained.

When rolling out the NAAS, Volvo's fully supports the PCs proposal for automated approvals and network-based maps, where access to LGA roads would also be included.

Volvo recommendation 8: LGA road assessors to be required to provide substantial justification for their objection/s; and for a transparent consultancy period, in which applicants can respond, to occur.

For example, some recent non-fact-based permit objections received from assessors include –

- Not allowing zero emission BEVs to operate on their roads, despite a comprehensive access network being available on nearby roads, due to safety concerns of them operating near schools. Reality being that stopping distances for such vehicles are not increased by the increased axle weights. New technology vehicles are also fitted with other first class active safety and braking systems that would likely make them safer than most other heavy vehicles operating on the same roads today.
- Receiving an objection for a quiet zero emission BEV truck from one LGA because "it would be too noisy".

The Strategic Local Government Asset Assessment Project

Volvo agrees with the PCs draft recommendation that the Australian Government should fund future phases of the Strategic Local Government Asset Assessment Project, which would provide a comprehensive and complete heavy vehicle assessment of assets nationally.

Further to funding this project, it would also be beneficial to see funding from the Australia Government provided and distributed to both state and local governments for road and asset maintenance. Currently federal governments provide state funding, but it is not always disseminated to the LGAs. This in turn fuels their reluctance to allow access for PBS and heavy zero emissions vehicles.

Based on the Assessment Project results, it would be ideal if the Australian Government shared a future funding plan with the jurisdictions and LGAs. The idea would be for this plan to not only transparently document what funding the Australian Government is committed to and what their funding dissemination expectations are, but also what funding gaps the jurisdictions and LGAs each need to plan for – noting the productivity, financial, environmental and health gains they would be receiving.

Administrative and regulatory barriers to charging infrastructure

In terms of charging infrastructure, Volvo agrees with the PC's findings and recommendations. A new and updated Electric Vehicle Charging Infrastructure Mapping Tool would not only help investors, but also operators in their BEV route assessments, planning and scheduling.

The PC is also correct in calling out the need for HZEV charging infrastructure to be more powerful and have more space compared to passenger EV charging infrastructure.

Volvo recommendation 9: To include the option for chargers with the new Megawatt Charging System (MCS) standard at relevant heavy vehicle charging bays.

This new charging system offers up to 700kW power and would enable the new Volvo long-range BEV with a 700km range to be charged from 20% to 80% in 50mins.

4.5 Heavy vehicle rest areas may warrant special attention

Information request 4.2 - What regulatory or administrative actions should governments take (if any) to facilitate private investment in charging infrastructure at state and territory government provided heavy vehicle rest areas?

Volvo agrees with the PCs observations that since urban freight has the best short-term electrification prospects, and is expected to rely more on depot charging than enroute charging (e.g. at heavy vehicle rest stops) or destination charging (e.g. at freight nodes or more significant freight centres) (figure 4.2), freight centres are likely to be the initial focus of the charging rollout with the other locations following.

In regard to the PCs mention of battery swapping, Volvo would just comment that large scale overseas implementation shows that battery swapping technology is an increasingly dated solution and is in decline in large BEV markets like China for various reasons.

Curfews impose costs on operators and the broader community

Information request 5.2 - The PC is seeking information to illustrate the costs and benefits of reducing curfews on heavy zero emissions vehicles and the costs and benefits of possible approaches to reform, along with their implementation.

Volvo agrees with the PCs findings that curfews in many cases impose increased costs on transport operators.

If not for all vehicles, Volvo agree that curfews should be removed for heavy zero emissions vehicles that are quieter and cleaner in operation. Volvo would like to point out that this would also act as an incentive to promote the acceleration of heavy zero emission vehicle uptake.

Volvo Recommendation 10: To apply a Total Cost of Ownership (TCO) lens to the productivity gains generated by the removal of curfews.

While the removal of curfews doesn't directly support the increased upfront capital cost of BEVs, it does play a role in reducing the TCO of these vehicles. Removal of curfews would enable operators the ability to –

- Operate BEVs in less congested off-peak times, thereby reducing the amount of energy and charging required for vehicles on these routes, and subsequently be able to also perform more trips with the same number of vehicles.

- Potentially provide the opportunity for operators to charge their BEVs during 'off peak' electricity times to leverage the lower energy prices.