Australian Government Impact Analysis Preliminary Assessment Form

July 2023

| Overview |
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| Name of department/agency: Department of Infrastructure, Transport, Regional Development, Communications and the Arts |
| Name of proposal: Update of the Australian Design Rule (ADR) 72/00 – Dynamic Side Impact Occupant Protection |
| Type of proposal: ~~~~ Standards |
| Is this an election commitment?  Yes (include link to commitment) ~~~~ No  |
| Key dates and timeline: Updated ADR to responsible Minister by late 2023. The peak body representing the light vehicle Industry fully support mandating the proposed new ADR for EVs and hybrids (Option 1) and would prefer these to be made to reduce regulatory costs, ensure continuity in market supply, increase safety and align with leading international markets.The Department would therefore prefer to progress the proposed new ADR 72/01 to the responsible Minister by late 2023 following consultation with industry on a final draft of the new ADR, without the need for a Regulation Impact Statement (RIS), as this would (if required) significantly delay the realisation and ensure close alignment with the ADRs relating to the safe construction of Zero Emission Vehicles (ADR 109/00 and ADR 110/00). Following consultation with the light vehicle industry on the draft ADR, the Department proposes an implementation timing of March 2025 for all new model vehicles and November 2026 for all vehicles. |
| Who will the decision maker be? ~~~~ Minister/Secretary/CEO  |
| Description of the problem:The ADRs are national standards for vehicle safety, anti-theft and emissions. The ADRs apply to vehicles supplied to the Australian market for use in transport (i.e. road vehicles), including vehicles newly manufactured in Australia, imported as new or second-hand vehicles. ADR 72/00 – Dynamic Side Impact Occupant Protection (ADR 72/00) specifies vehicle crashworthiness requirements in terms of forces and accelerations measured on anthropomorphic dummies so as to minimise the likelihood of injury to the occupants in a side impact. The requirements of the current version of ADR 72/00 were adopted directly from the 01 series of the international vehicle standard, the United Nations (UN) Regulation No. 95 (UN R95/01), as in force when the ADR was introduced in 2005.However, UN R95/01 has since been amended through the World Forum for Harmonisation of Vehicle Regulations (WP.29). The first amendment which is the 02 series of amendments to UN R95 was to include post-crash electrical safety requirements for electric and hybrid vehicles of passenger vehicle category (UN R95/02). The second amendment which is the 03 series of amendments to UN R95 was to include the same requirements for passenger and light goods vehicle categories (UN R95/03).These amendment (UN R95/03) does not change the crash testing requirements in the existing ADR 72/00 (UN R95/01) but simply adds a requirement that vehicle manufacturers or Original Equipment Manufacturers (OEMs) check the vehicle for any electrical leakage following the crash test. Therefore the existing test setup and crash test methods in ADR 72/00 (UN R95/01) remain the same with no additional burden on test or compliance costs.Based on the developments at the UN, ADR 72/00 is no longer aligned (harmonised) with the latest version of UN R95, which is the standard that most of the world is now complying with. This also means that the intent behind the original Regulation Impact Statement for the Improved Protection of Vehicle Occupants in Side Impact Crashes (OBPR-17694) is no longer met. Furthermore, a majority of OEMs have since improved their occupant protection performance such that vehicles manufactured in the past few years easily exceed the performance requirements in ADR 72/00 (UN R95/01). If the Government does not update this ADR, this will impose a regulatory burden (in particular, administrative and delay costs) on manufacturers and does not ensure the continuity of a level playing field. Most vehicles (combustion engine, electric hybrids and EVs) supplied to the market currently comply with requirements prescribed by ADR 72/00 (UN R95/01) and the latest revision that is UN R95/03, therefore the economic burden imposed by updating ADR 72 range from relatively low to none.Supporting data in Australian market supplyData collected from the Department’s Road Vehicle Certification System (RVCS) from December 2018 to December 2020 show that approximately 86.2 per cent of new model Identification Plate Approvals (IPAs) across the passenger vehicle category (MA, MB, MC) and light goods vehicle category (NA) comply with UN R95/03. This is a minimum because it relies on manufacturers providing a UN approval to demonstrate compliance. Additionally, manufacturers may comply without presenting a UN approval as evidence.Overall 90.56 per cent of passenger vehicle IPAs showed compliance with ADR 72/00 with an UN R95/03 Approval. 48 out of 53 new model IPAs approved were certified to the 3rd series of amendments of UN R95. This shows that a majority of IPAs were certified to the 3rd series of amendments of UN R95 (UN R95/03). The remaining vehicle models not certified are not subject to the requirements of the standard due to their design (off-road passenger vehicles or vehicles with a seating position higher than 700mm from the ground).Views of Stakeholders*Electric Vehicle Council (EVC)*The 2022 EVC annual report states that Australia lags behind the developed world in implementing standards that support the uptake of electric vehicles. The last 12 months have seen some new policies emerge at the state level but there have still been no significant policy developments federally (the ADRs). It remains critical that governments at all levels adopt policies that reduce barriers to consumers and signal market viability to international manufacturers.EVC sales rose sharply in 2021(EVC, 2022), with increased model availability, lower prices, and state and territory government incentives stimulating the market. Data shows EV sales in Australia tripled from the previous year to 20,665 electric vehicles sold, up from 6,900 in 2020. This increase represents a 2 per cent market share of all sales, compared to 0.78 per cent in 2020. Battery Electric Vehicle (BEV) and Plug-in Hybrid EV (PHEV) sales data from EVC:*Federal Chamber of Automotive Industries (FCAI)*The peak body representing over 99 per cent of the light vehicle industry, the FCAI has informed the Department it is very important to provide for internationally harmonised certification pathways for EVs, hybrids and Fuel Cell EVs (FCEVs) through UN Regulations. The Department consulted with the FCAI in 2022 and 2023 on the proposal to update ADR 72. The informed the Department that it is comfortable with the Department’s proposal to update ADR 72/00 to harmonise with UN R95/03 given that it is not in advance of international implementation and brands are already generally meeting the proposed requirements. Background*Global context*Few areas in the world of clean energy are as dynamic as the EV market. Sales of EVs doubled in 2021 from the previous year to a new record of 6.6 million. Back in 2012, just 120,000 EVs were sold worldwide. In 2021, more than that many are sold each week. Nearly 10 per cent of global car sales were electric in 2021, four times the market share in 2019. This brought the total number of electric cars on the world’s roads to about 16.5 million, triple the amount in 2018. Global sales of electric cars have kept rising strongly in 2022, with 2 million sold in the first quarter, up 75 per cent from the same period in 2021(IEA, 2022).As the world moves towards an increased adoption of electric vehicles, these vehicles will form a higher prevalence in the market. Setting up standards for electric vehicles in advance of this change ensures that consumer confidence in electrical vehicles is not undermined. This also provides assurance to emergency services that risks associated with emergency events concerning electric and hybrid vehicles are being minimised and that likelihood of injuries to personnel is reduced. An additional benefit of establishing safety standards for electric vehicles at an early stage is so electric vehicles have comparable levels of safety to internal combustion engine vehicles and high compliance rates are maintained once electric vehicles are supplied to the market.Another major change in the external environment is the announced plans of a significant proportion of global vehicle manufacturers. In recognition of the collective emission targets of many countries, the vehicle manufacturers have outlined plans for the eventual discontinuation of the design or manufacture of new internal combustion vehicles with dates ranging from 2030 to 2050 (CSIRO, 2021).*Australian context*Stringent vehicle efficiency and/or CO2 standards have promoted EV adoption in most leading EV markets and should be adopted by all countries seeking to hasten the transition to electro-mobility.Just over 2 per cent of cars sold here are electric and plug-in hybrid – compared to 17 per cent in the United Kingdom, and 85 per cent in Norway. In total, there are only around 24,000 registered electric cars on Australian roads, of around 15 million total cars. This is despite growing enthusiasm for electric cars in Australia.The Federal Government recently announced it will introduce an Electric Car Discount – to make electric cars cheaper so that more families who want them can afford them, and to reduce emissions. As part of the Discount, the Government will exempt many electric cars from import tariffs and fringe benefits tax. It is expected these measures will encourage car manufacturers to import and supply more affordable electric models in Australia.To support the Electric Car Discount policy, the Government also worked with industry, unions, states and consumers to develop Australia’s first National Electric Vehicle Strategy, including consideration of:* further measures to increase electric car sales and infrastructure;
* policy settings to encourage Australian manufacturing of electric car components (especially batteries) and possibly cars themselves.

This work also compliments other work the Department is progressing in the space for Zero Emission Vehicles (ZEVs) with the introduction of ADR 109/00 and 110/00 that ensure the safe construction of Rechargeable Electric Energy Storage Systems (REESS) and Compressed Hydrogen Storage Systems (CHSS) for road vehicles (OIA22-03727).As summarised above, the rate of uptake of EVs and hybrid EVs is predicted to grow as a result of various policy measures and the expectation that price parity will be reached in comparison with Internal Combustion Engine (ICE) vehicles. Consumers expect all vehicles to meet a certain level of safety, this includes from electrical faults. First responders also expect to be protected when carrying out their work. Aligning with international standards is long standing Australian Government policy, and is supported by industry. It is important to ensure that EVs and hybrid EVs do not have worse safety features than conventional ICE vehicles. |
| Outline of the objectives of government action:A general objective of the Government is to ensure that the most appropriate measures for delivering safer vehicles to the Australian community are in place. In this respect, it has been a longstanding policy to harmonise the ADRs with international standards where possible, through the adoption of international regulations developed by the UN World Forum for Harmonization of Vehicle Regulations (WP.29), the peak international body for vehicle standards. This policy is also important to fulfil Australia’s World Trade Organisation commitments. |
| Outline of the options available:Option 1: Update to the latest international standard (***Preferred option***)Under this option, the Government would implement a new version of ADR 72 (a new ADR 72/01 to replace ADR 72/00). The new ADR 72/01 would be fully harmonised / aligned with the 03 series of amendments to UN Regulation 95. Implementing ADR 72/01 would not be in advance of international enforcement dates as UN R95/03 is already in-force in other major markets. Under this option passenger vehicles and light goods vehicles are required to comply with ADR 72/01.Option 2: Update to a later international standardUnder this option, the Government would implement a new version of ADR 72 (a new ADR 72/01 to replace ADR 72/00). The new ADR 72/01 would be fully harmonised / aligned with the 02 series of amendments to UN Regulation 95. Under this option only passenger vehicles are required to comply with ADR 72/01.Option 3: No intervention (Business as Usual)Under this option, no changes would be made to ADR 72/00. All passenger vehicles, including hybrids and EVs would still be required to comply with ADR 72/00, but would not be required to comply with the post-crash electric vehicle safety check included in the later version of UN Regulation 95. Vehicle manufacturers could optionally choose to comply with the later version of regulation 95 in accordance with our obligations under the UN 1958 agreement treaty. The preference for the peak light vehicle industry body (FCAI) is for the Government to align with international standards but not in advance of international timing.Option 2 and 3 are not the Department’s recommended options, as they leave it open to some manufacturers to not comply with the later requirements which could undermine Government efforts to encourage the uptake of electric and hybrid electric vehicles.**Option 1 is the preferred option** because it achieves the objectives of government action, to avoid any increase in regulatory burden to industry through misalignment of the domestic and international vehicle certification systems and is supported by the industry. Option 1 ensures market certainty for the light passenger and goods vehicle industry through the ready acceptance of the latest international standards. |

| Likely impact on people, businesses and community organisations (Further information on impacts can be found in our [What to include in the Impact Analysis Preliminary Assessment Form](https://oia.pmc.gov.au/resources/forms-and-templates/australian-government-impact-analysis-preliminary-assessment-form)) |
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| What are the likely impacts of your proposal? Implementing a new version of ADR 72 (Option 1) would have no more than a minor to negligible regulatory impact, as this will enable industry to continue its current practice of utilising UN approvals to demonstrate compliance with ADR requirements.*Economic benefits*There would be substantial benefits to businesses under Option 1 by harmonising with the latest version of UN R95. Option 1 would have a positive effect on trade facilitation. Including the latest version to UN regulations within the ADR would provide certainty to vehicle suppliers and importers that the ADR would continue to be aligned with the latest UN regulations allowing them to reduce certification costs by using existing approvals from larger markets.In Australia, passenger motor vehicles are the second largest import item. The top five countries that bring passenger cars into Australia are Contracting Parties to the 1958 Agreement. Increasing the high level of harmonisation reduces the cost for manufacturers to supply safer vehicles as they can amortise their costs over a larger number of vehicles.Data from the FCAI and data from Australia’s new vehicle certification system (RVCS) showed that a majority of submissions were already opting for UN approval pathways. As a result the cost of this change will be small to none.*Consumer benefits*Electric hybrids and EVs are cheaper to run and maintain. For example, Nissan estimates that a commuter in NSW can save $30 a week by switching from a petrol car to its Leaf model. (ALP, 2022)Improve consumer confidence in electric and hybrid vehicles of passenger and goods vehicle categories. *Safety benefits*In addition to policies, financial incentives and market penetration targets, technical regulations (the ADRs) have an essential role to ensure the safe and sustainable deployment of electric hybrids and EVs in Australia. Standards detail methodologies to test electric hybrids and EVs and protect users and emergency service personnel from electrical shocks in the event of a crash.Taking no action (Option 3) would allow some manufacturers to supply vehicles that offer lower levels of safety. This will have a negative impact on levels of road trauma, including impacts on first responders as well as reducing confidence in electric and hybrid vehicles as a viable transport option. |
| What is your assessment of the significance of the likely impacts of the proposal? Why?The preferred option (Option 1) would have only a minor impact with no significant increase or decrease in overall regulatory costs. The minor increase in stringency of technical requirements prescribed in UN R95/03 covering post-crash electrical safety requirements only affects light passenger and goods vehicles with an electric drive train (EVs and hybrids) constituting a marginal percentage of the market (2 per cent in 2021). Rising sales and long waiting lists emphasise that further growth in Australia is inhibited not by a lack of consumer demand, but by supply constraints.Current vehicles (internal combustion engine, electric hybrids and EVs) supplied to the Australian market already comply with the requirements prescribed by the later versions of UN R95/02 and UN R95/03 as informed by the FCAI. It is expected that future vehicles will comply with the R95/03 requirements as they are manufactured for world markets and hence the economic burden is low. If electric hybrids and EVs not complying with the post-crash requirements were supplied to the market it could unnecessarily undermine consumer confidence in electric vehicles. Hence harmonisation of ADR 72 with UN 95/03 provides regulatory certainty for industry, emergency services and consumers as well as ensure alignment with the introduction of ADRs for ZEVs (ADR 109/00 and 110/00). |
| How many people, businesses or community organisations will be affected?Proposals for new and amended ADRs are developed in consultation with representatives of the Australian Government, state and territory governments, manufacturing and operating industries, road user groups and experts in the field of road safety. The analysis needed and the bodies consulted depend on the degree of impact the new or amended ADR is expected to have on industry or road users. The Department has consulted on the proposal to update ADR 72/00 with the 03 series of amendments to UN Regulation No. 95 with the light and heavy vehicle industry, including the Federal Chamber of Automotive Industries (FCAI), the Truck Industry Council (TIC) and emergency services organisations. They have expressed full support for the Department’s preferred option to update ADR 72/00 to ADR 72/01 given that it is not in advance of international implementation, brands are already generally meeting the proposed requirements and there is no additional cost to incur with the electrical check following a crash test. |
| Have you consulted with stakeholders? If not, what are their likely views? |

See above for consultation with stakeholders. The Department has a number of different vehicle certification schemes, including both full volume and concessional. Concessional schemes minimise regulatory burden (particularly for small businesses), by simplifying the evidence required to demonstrate eligible vehicles comply with the ADRs. The proposed change will not impact on the current arrangements.

| Contact information (Please enter your contact information below) |
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| Names: |
| Email and Phone: |
| Date: 12 August 2023 |
| Please forward the completed form to OIA at Helpdesk-OIA@pmc.gov.au or call (02) 6271 6270 to discuss your proposal with an OIA officer. |

| Small Business, Trade, Gender, Regional Australia, and First Nations Impacts |
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| You may wish to contact the [Australian Small Business and Family Enterprise Ombudsman's](https://www.asbfeo.gov.au/about-us/contact-us) (ASBFEO) office to discuss small business impacts (contact: regulation@asbfeo.gov.au) |
| You may wish to contact the Trade and Investment Law Branch at the Department of Foreign Affairs & Trade (trade.law@dfat.gov.au) or the Office of International Law within the Attorney-General’s Department (oil.coordinator@ag.gov.au) to understand how your proposed policy may interact with Australia’s trade and investment law obligations. |
| You may wish to contact the Office for Women to discuss gender impacts (contact: GIA@pmc.gov.au) |
| You may wish to contact the Department of Infrastructure, Transport, Regional Development and the Arts to discuss regional Australia impacts (RAIS@infrastructure.gov.au) |
| You may wish to contact the National Indigenous Australians Agency to discuss First Nations impacts (FirstNationsImpacts@niaa.gov.au) |