**Vehicle Standard (Australian Design Rule 81/03 – Vehicle Efficiency Labelling and Carbon Dioxide Emissions Measurement) 2025**

Made under section 12 of the *Road Vehicle Standards Act 2018*

**Explanatory Statement**

Approved by the Hon Catherine King MP, Minister for Infrastructure, Transport, Regional Development and Local Government

**Month 2025**

**Contents**

[1. legislative Authority 3](#_Toc184225128)

[**1.1.** **National Road Vehicle Standards** 3](#_Toc184225129)

[Vehicle Standard (Australian Design Rule 81/03 – Vehicle Efficiency Labelling and Carbon Dioxide Emissions Measurement) 2025 is made under section 12 of the *Road Vehicle Standards Act 2018* (the Act). Section 12 of the Act allows the Minister to determine National Road Vehicle Standards. 3](#_Toc184225130)

[**1.2.** **Exemption from Sunsetting** 3](#_Toc184225131)

[Vehicle Standard (Australian Design Rule 81/03 – Fuel Consumption Labelling and Carbon Dioxide Emissions Measurement) 2025 is exempt from the sunsetting provisions of the *Legislation Act 2003.* 3](#_Toc184225132)

[2. Purpose and operation 4](#_Toc184225133)

[**2.1.** **Overview of the ADR** 4](#_Toc184225134)

[**2.2.** **Design Requirements** 6](#_Toc184225135)

[**2.3.** **Exemptions and Alternative Procedures** 7](#_Toc184225136)

[**2.4.** **Alternative Standards** 8](#_Toc184225137)

[3. MATTERS INCORPORATED BY REFERENCE 9](#_Toc184225138)

[**3.1.** **Other Legislative Instruments** 9](#_Toc184225139)

[**3.2.** **International Vehicle Regulations** 10](#_Toc184225140)

[United Nations Regulations and/or Resolutions 10](#_Toc184225141)

[European Union (EU) Regulations 12](#_Toc184225142)

[**3.3.** **Technical standards** 13](#_Toc184225143)

[4. CONSULTATION 15](#_Toc184225144)

[**4.1.** **General Consultation Arrangements** 15](#_Toc184225145)

[**4.2.** **Specific Consultation Arrangements** 15](#_Toc184225146)

[5. Regulatory Impact 15](#_Toc184225147)

[6. STATEMENT OF COMPATIBILITY WITH HUMAN RIGHTS 15](#_Toc184225148)

[**6.1.** **Overview** 15](#_Toc184225149)

[**6.2.** **Human Rights Implications** 15](#_Toc184225150)

[**6.3.** **Conclusion** 15](#_Toc184225151)

1. legislative Authority
   1. **National Road Vehicle Standards**

Vehicle Standard (Australian Design Rule 81/03 – Vehicle Efficiency Labelling and Carbon Dioxide Emissions Measurement) 2025 is made under section 12 of the *Road Vehicle Standards Act 2018* (the Act). Section 12 of the Act allows the Minister to determine National Road Vehicle Standards.

* 1. **Exemption from Sunsetting**

Vehicle Standard (Australian Design Rule 81/03 – Fuel Consumption Labelling and Carbon Dioxide Emissions Measurement) 2025 is exempt from the sunsetting provisions of the *Legislation Act 2003.*

*Source of the Exemption*

A standard made under section 12 of the Act is not subject to the sunsetting provisions of section 50 of the *Legislation (Exemptions and Other Matters) Act 2003* through section 12 of the *Legislation (Exemptions and Other Matters) Regulation 2015* (table item 56C). A similar exemption was previously granted in respect of national road vehicle standards made under section 7 of the *Motor Vehicle Standards Act 1989* (MVSA) (item 40, section 12 of the *Legislation (Exemptions and Other Matters) Regulation 2015).* This exemption is important to ensure that ADR 81/03 continues to remain in force, and available to regulators and industry.

*Justification*

It is appropriate that standards made under section 12 of the Act, also known as the Australian Design Rules (ADRs), remain enduring and effective to regulate ongoing road worthiness of vehicles throughout their useful life and reduce regulatory burden on vehicle manufacturers.

*Intergovernmental dependencies*

The exemption concerns ADRs which facilitate the establishment and operation of the intergovernmental vehicle standard regime that Commonwealth, State and Territory governments rely on to regulate the safety of vehicles on public roads.

The Commonwealth uses the ADRs as the basis on which approvals to supply types of road vehicles to the market are granted under the *Road Vehicle Standards Rules 2019.* States and territories use the ADRs as the primary criteria on which vehicles are assessed for road worthiness. This ‘in-service’ aspect is dependent on the date of manufacture, which determines the applicable version of the ADRs against which the vehicle can be assessed. The ability to rely on national standards is particularly relevant given the long service life of vehicles – the average age of vehicles in Australia is 12.1 years.

While the ADRs are regularly updated to reflect changes in technology, it is not possible to apply these new standards retrospectively to vehicles that are already in use. With former ADRs kept on the Federal Register of Legislation, State and Territory governments can use them to ensure vehicles continue to comply with the ADRs that were in force when they were first supplied to the market.

In the event that the Commonwealth could not justify the maintenance of the ADRs, State and Territory governments would be compelled to create their own vehicle standards. Whilst this could mean adopting the substance of the lapsed ADRs as an interim measure, the differing needs and agendas of each State and Territory government may result in variations to in-service regulations. Having different vehicle standards across the states and territories would make the scheme operate contrary to the underlying policy intent of the Act which is to set nationally consistent performance based standards.

*Commercial dependencies*

The effect on vehicle manufacturers to redesign existing models to comply with new ADRs would present a burden and be a costly and onerous exercise. Manufacturers should not be expected to continually go back to redesign existing vehicles. Furthermore, ongoing product recalls to comply with new ADRs would undermine consumer confidence with significant financial impact to manufacturers. This exemption allows vehicle manufacturers to focus their efforts to ensure new models supplied to the market continue to comply.

*Review of Australian Design Rules*

Despite exemption from sunsetting, ADRs are subject to regular reviews, as resources permit, and when developments in vehicle technology necessitate updates to requirements.

Reviews of the ADRs ensure the ongoing effectiveness of a nationally consistent system of technical regulations for vehicle design, which are closely aligned, wherever appropriate with leading international standards such as United Nations regulations. This enables a rapid introduction of the latest technological advances into the Australian market, while also contributing to the industry’s cost competitiveness in the domestic market.

1. Purpose and operation
   1. **Overview of the ADR**

ADR 81/03 prescribes the requirements for the measurement of vehicle fuel consumption, carbon dioxide emissions, energy consumption and range, and the design and application of fuel consumption labels and energy consumption labels to light vehicles.

It also prescribes the requirements for determining a vehicles’ carbon dioxide *emissions number* to be entered onto the ‘Register of Approved Vehicles’ (RAV) to comply with the New Vehicle Efficiency Standard (NVES). Under Section 20 the *New Vehicle Efficiency Standard Act 2024* (the NVES Act), a vehicle’s ‘*emissions number’* is the number of grams of carbon dioxide emissions that are entered on the RAV.

Clause 3.1 states that the ADR applies to all passenger cars (MA category vehicles), forward control passenger vehicles (MB category vehicles), off-road vehicles (MC category vehicles), light buses (MD category vehicles), light goods vehicles (NA category) and medium goods vehicles (NB category vehicles) with a gross vehicle mass (GVM) up to 4,500kg.

Clause 3.1.1 states that the ADR will apply to all new model MA, MB, MC, NA and NB category vehicles from 1 December 2026. These are the vehicle categories subject to the NVES Act.

Clause 3.1.2 states that the ADR will apply to all NB category vehicles and MA, MB, MC category vehicles with a GVM over 3,500kg from 1 December 2026. This is intended to enable the inclusion of sport utility vehicles and commercial pick-up and cab-chassis utility vehicles with a GVM over 3,500kg in the New Vehicle Efficiency Standard from 1 January 2027.

Clause 3.1.3 states there is no mandatory applicability date for all other vehicles. This is because existing models with a GVM under 3,500kg already comply with equivalent requirements adopted in Vehicle Standard (Australian Design Rule 81/02 – Fuel Consumption Labelling for Light Vehicles) 2008 (ADR 81/02) and MD category vehicles with a GVM over 3,500kg are not subject to the NVES Act.

Clause 3.2 states that a ‘new model’ is a vehicle model first produced with a ‘Date of Manufacture’ on or after the agreed date in that clause 3.1.1 (1 December 2026).

Clause 3.3 advises that some NB1 category (medium duty goods carrying) vehicles with a GVM up to 4,500kg are not required to comply with this ADR, if they meet objective technical criteria specifying a minimum cargo area. This is because light duty trucks and vans with a GVM over 3,500kg are not intended be included in the NVES. This is because these are more akin to heavy vehicles than light commercial vehicles, are not used for personal transport and are widely used to supply emergency and other public interest services.

Clause 4 specifies how the vehicle categories and technical terms used in the ADR are to be defined. These terms have the same meaning as the UN Regulation adopted as Appendix B of this ADR in the first instance. If a term is not defined in Appendix B, the term is considered to have the same meaning as in Appendix A of Vehicle Standard (Australian Design Rule 111/00 – Advanced Emission Control for Light Vehicles) 2024. If a term is not defined in either of the above instruments, it has the same meaning as in the Vehicle Standard (Australian Design Rule – Definitions and Vehicle Categories) 2005.

* 1. **Design Requirements**

Clause 5.1 requires all MA, MB, MC, NA and NB category vehicles with a gross vehicle mass up to 4,500kg to report a carbon dioxide emissions value determined in accordance with Appendix B, as varied by Clause 6 (Exemptions and Alternative Procedures) or one of the alternative standards specified in Clause 7.1 and 7.2. Appendix B adopts the technical requirements of UN Regulation No. 101, which specifies a laboratory test for measuring fuel consumption, carbon dioxide emission, electric energy consumption and battery range based on the New European Driving Cycle (NEDC).

Clause 5.2 requires all MA, MB, MC, MD and NA category vehicles with a gross vehicle mass up to 3,500kg to be fitted with a vehicle efficiency label as appropriate for the fuel type/powertrain.

Clause 5.3 permits, but does not require MA, MB, MC, MD and NA category vehicles with a gross vehicle mass over 3,500kg to be fitted with a vehicle efficiency label if it meets the same requirements applicable to lighter vehicles. This means vehicles that comply with this clause can submit this information to the Australian Government’s Green Vehicle Guide website.

Clause 5.4 states that the label must be fitted to the bottom left corner (passenger side) from the inside of the vehicle’s windscreen.

Clause 5.5 requires a fuel consumption label to be fitted to vehicles powered by exclusively by an internal combustion engine, and hybrid electric vehicles that cannot be charged from an external source (other than hydrogen fuelled vehicles).

Clause 5.5.1 requires the manufacturer to report the fuel consumption and carbon dioxide emissions measured over the combined (full), urban and extra-urban phases of the laboratory test specified in Appendix B, as varied by clause 6, or one of the alternative standards specified in clauses 7.1 or 7.2.

Clause 5.5.2 requires the fuel consumption label to display the combined, urban and extra-urban fuel consumption values and the combined carbon dioxide emissions value measured in accordance with Clause 5.5.1.

Clause 5.6 requires an energy consumption label to be fitted to pure/battery electric vehicles, plug-in hybrid electric vehicles and plug-in hybrid fuel cell vehicles.

Clause 5.6.1 requires the manufacturer to report the fuel consumption and carbon dioxide emissions measured over the combined (full), urban and extra-urban phases of the laboratory test specified in Appendix B, as varied by clause 6, or one of the alternative standards specified in clauses 7.1 or 7.2. It also requires the vehicle’s electric energy consumption and pure/all electric range to be measured in accordance with the laboratory test in Appendix B, or one of the alternative standards specified in clauses 7.1, 7.4 or 7.6.

Clause 5.6.2 requires the energy consumption label to display the energy consumption, range, combined, fuel consumption values and the combined carbon dioxide emissions value measured in accordance with Clause 5.6.1.

Clause 5.7 provides for a hydrogen consumption label to be fitted to fuel cell, hybrid and internal combustion engine vehicles that operate on hydrogen.

If fitted, Clause 5.7.1 requires the manufacturer to also report the vehicle’s combined fuel consumption and combined carbon dioxide emissions measured in accordance with ADR 111/00 or the one of alternative standards specified in clauses 7.3 or 7.5.

* 1. **Exemptions and Alternative Procedures**

Exemptions

Clause 6.1 creates exemptions from some requirements of Appendix B which pertain to gaining a Type Approval under the UN 1958 Agreement[[1]](#footnote-2). This is because they are not required to obtain a vehicle type approval in the Australian context where the Commonwealth administers approvals through the Act and the Road Vehicle Standards Rules. Consequently, manufacturers supplying new vehicles to Australia are exempt from most administrative (non-technical) requirements of UN Regulation 101.

Clause 6.1 states that sections 1, 3, 4, 6, 8, 9, 10, 11, 12 and 13 and Annexes 1 to 5 of Appendix B are not applicable for the purposes of complying with ADR 81/03. This is because they refer to administrative requirements to obtain and maintain a Type Approval under the UN 1958 Agreement.

Alternative Procedures

Clause 6.2 state that reference UN Regulation No. 83, which underpins the laboratory test adopted in UN Regulation No. 101 is to be interpreted as Appendix A of ADR 79/04. ADR 79/04 adopts the technical requirements for UN Regulation No. 83, based on the NEDC drive cycle.

Clauses 6.3 advises that pure electric and hydrogen fuelled vehicles may report a carbon dioxide emissions value of zero in lieu of testing. This is because these vehicles produce zero tailpipe emissions by virtue of their fuel type.

Clause 6.4 advises that vehicles that comply with ADR 111/00 or specified alternative standards in ADR 79/05 or ADR 80/04 may use the conversion procedure specified in Appendix C to convert fuel consumption and carbon dioxide emission values measured in accordance with the Worldwide harmonised Light vehicles Test Procedure (WLTP) or the test cycle adopted by the United States Environmental Protection Agency to NEDC equivalent values to comply with clauses 5.1, 5.5 and 5.6. The means vehicles complying with these stricter international standards are not required to retest to the older NEDC test cycle to comply with the ADR and the NVES.

* 1. **Alternative Standards**

Clause 7 specifies alternative international standards vehicle manufacturers may test vehicles may use to determine the fuel consumption, energy consumption and battery range values required by this ADR.

Clause 7.1 permits manufacturers to report fuel consumption, carbon dioxide emissions, energy consumption and battery range values on the labels based on testing to United Nations (UN) Regulation No. 101. This UN Regulation adopts the same laboratory tests adopted in Appendix B.

Clause 7.2 permits manufacturers to report fuel consumption carbon dioxide emissions, values based on EU Regulation 2017/1152 and 2017/1153. This Regulation adopts an equivalent conversion procedure to Appendix C.

Clause 7.3 permits manufacturers of hydrogen vehicles to report fuel consumption carbon dioxide emissions values based on UN Regulation No. 154. This Regulation adopts the WLTP, and all hydrogen vehicles currently approved for sale in Australia report figures based on this test procedure to comply with standards in larger vehicle markets. No procedure exists to convert these figures to an NEDC equivalent.

Clause 7.4 permits manufacturers of electric and plug-in vehicles to report energy consumption and range values based on UN Regulation No. 154. This Regulation adopts the WLTP, and all electric and plug-in hybrid vehicles currently approved for sale in Australia report figures based on this test procedure to comply with standards in larger vehicle markets. No procedure exists to convert these figures to an NEDC equivalent.

Clause 7.5 permits manufacturers of hydrogen vehicles to report fuel consumption carbon dioxide emissions values based on EU Regulation 2017/1151. This Regulation adopts the WLTP, and all hydrogen vehicles currently approved for sale in Australia report figures based on this test procedure to comply with standards in larger vehicle markets. No procedure exists to convert these figures to an NEDC equivalent.

Clause 7.6 permits manufacturers of electric and plug-in vehicles to report energy consumption and range values based on EU Regulation 2017/1151. This Regulation adopts the WLTP, and all electric and plug-in hybrid vehicles currently approved for sale in Australia report figures based on this test procedure to comply with standards in larger vehicle markets. No procedure exists to convert these figures to an NEDC equivalent.

Appendix A specifies the format of the fuel consumption label, energy consumption label and hydrogen consumption label. This are based on a similar format to the labels adopted in ADR 81/02, but advise that the vehicle was tested in accordance with the new ADR 81/03.

Appendix B adopts the technical requirements of UN Regulation No. 101, which specifies a laboratory test for measuring fuel consumption, carbon dioxide emission, electric energy consumption and battery range based on the New European Driving Cycle (NEDC).

Appendix C specifies a method for converting carbon dioxide emission values measured in accordance with the Worldwide harmonised Light vehicles Test Procedure adopted in UN Regulation No. 154 or the US EPA standards for light vehicles accepted in ADR 79/05 to enable an equivalent value that could be expected if the vehicle was tested in accordance the New European Drive Cycle (NEDC) mandated by Appendix B.

1. MATTERS INCORPORATED BY REFERENCE

Section 12 of the Act allows the Minister to incorporate a broad range of documents, both as in force at a particular time and as in force from time to time, when making national vehicle standards. This ensures that Australia’s legislative framework is well-prepared for future developments in the international road vehicle space. ADR 81/03 makes use of this provision as specified below.

* 1. **Other Legislative Instruments**

Clause 3.1.3 refers to Vehicle Standard (Australian Design Rule 81/02 – Fuel Consumption Labelling for Light Vehicles 2008. This vehicle standard adopts fuel consumption and carbon dioxide emissions testing requirements based on the New European Drive Cycle adopted in UN Regulation No. 101.

Clauses 3.3.2 and 3.3.3 refer to the Vehicle Standard (Australian Design Rule 43/04 – Vehicle Configuration and Dimensions) 2006. The ADR specifies requirements for vehicle dimensions, such as length and width and how much the length of the rear of the vehicle can go past the rear wheels.

Clauses 4.1.2, 5.7.1 and 6.4 refer to Vehicle Standard (Australian Design Rule 111/00 – Advanced Emission Control for Light Vehicles) 2024. This vehicle standard adopts fuel consumption and emissions testing requirements and terminology based on the Worldwide harmonised Light vehicles Test Procedure (WLTP) adopted in UN Regulation No. 154.

Clause 4.1.3 refers to the Vehicle Standard (Australian Design Rule Definitions and Vehicle Categories) 2005 (which may also be cited as the Australian Design Rule – Definitions and Vehicle Categories). This sets out definitions for many terms used in the ADRs, including the vehicle categories used in ADR applicability tables.

Clause 6.2 refers to Vehicle Standard (Australian Design Rule 79/04 – Emission Control for Light Vehicles) 2011. This vehicle standard sets a range of emission control requirements for light vehicle exhaust emissions.

Clause 6.4 (a) refers to Vehicle Standard (Australian Design Rule 79/05 – Emission Control for Light Vehicles) 2011. This vehicle standard sets a range of emission control requirements for light vehicle exhaust emissions.

Clause 6.4 (b) refers to Vehicle Standard (Australian Design Rule 80/04 – Emission Control for Heavy Vehicles) 2023. This vehicle standard sets a range of emission control requirements for heavy vehicle exhaust emissions.

The ADRs may be freely accessed online through the Federal Register of Legislation. The website is www.legislation.gov.au.

In accordance with subsection 12 of the Act, each of these ADRs are incorporated as in force or existing from time to time. The ellipses (…) indicates the version(s) (e.g. 00, 01 etc.) of the ADR in force at the time.

* 1. **International Vehicle Regulations**

### United Nations Regulations and/or Resolutions

Clause 6.2 refers to the 07 series of amendments UN Regulation No. 83 – *Uniform provisions concerning the approval of vehicles with regard to the emission of pollutants according to engine fuel requirements)*. This is the previous UN Regulation for light vehicle noxious emissions and specifies the emissions test procedures underpinning Appendix B of this ADR.

Clause 7.1 refers to 01 series of amendments to United Nations Regulation No. 101, *Uniform provisions concerning the approval of passenger cars powered by an internal combustion engine only, or powered by a hybrid electric power train with regard to the measurement of the emission of carbon dioxide and fuel consumption and/or the measurement of electric energy consumption and electric range, and of categories M1 and N1 vehicles powered by an electric power train only with regard to the measurement of electric energy consumption and electric range*,. This UN Regulation specifies a laboratory test for measuring fuel consumption, carbon dioxide emission, electric energy consumption and battery range based on the New European Driving Cycle (NEDC). The NVES targets for 2025 to 2029 are based on the NEDC.

Clauses 7.3 and 7.4 refer to United Nations Regulation No. 154 - *Uniform provisions concerning the approval of light duty passenger and commercial vehicles with regards to**criteria emissions, emissions of carbon dioxide and fuel consumption and/or the measurement of electric energy consumption and electric range (WLTP)* as an acceptable alternative standard for measuring fuel consumption, energy consumption and range*.* This is the current UN Regulation for measuring fuel consumption, emissions, energy consumption and battery range based on testing to the WLTP.

Appendix B of this ADR (which adopts the text of UN Regulation No. 101) includes a number of references to UN vehicle regulations and resolutions. Further information on these references can be found in table 1.

| **UN Regulations/Resolutions** | **References in Appendix B** |
| --- | --- |
| *Consolidated Resolution on the Construction of Vehicles (R.E.3.), document ECE/TRANS/WP.29/78/Rev.2.* | *Footnote to Cl. 1, 4.4.1, 7.1.3,*  *Annex 4 – footnote to Cl. 6.3.1* |
| *UN Regulation No. 83 - Uniform provisions concerning the approval of vehicles with regard to the emission of pollutants according to engine fuel requirements* | *Cl. 3.3, 5.1.3, 9.3.1.1.2.4, 13.3,*  *Annex 5*  *Annex 6 – Cl. 1.1, 1.3, 1.4.1, 1.4.2*  *Annex 7 – App 1 – Cl. 1*  *Annex 8 – Cl. 1.4.1, 1.4.2, 1.4.3, 3.2.3.4,3.3.2.4, 4.2.4.4, 4.3.2.4*  *Annex 9 – Cl. 4.2.2.1.1*  *Annex 10 – Cl. 3.2.1* |
| UN Regulation No. 49 - *Uniform provisions concerning the measures to be taken against the emission of gaseous and particulate pollutants from compression-ignition engines and positive ignition engines for use in vehicles* | *Cl. 1* |
| UN Regulation No. 48 - *Uniform provisions concerning the approval of vehicles with regard to the installation of lighting and light-signalling devices* | *Cl. 5.1.2.1* |
| UN Global Technical Regulation No. 15 | *Cl. 13.5* |
| UN Regulation No. 67 - *Uniform provisions concerning the approval of:*   1. *Specific equipment of vehicles of category M and N using liquefied petroleum gases in their propulsion system* 2. *II. Vehicles of category M and N fitted with specific equipment for the use of liquefied petroleum gases in their propulsion system with regard to the installation of such equipment* | *Annex 1 – Cl. 4.1.4.5.1, 4.1.4.6.1,* |
| UN Regulation No 68 – *Uniform provisions concerning the approval of power-driven vehicles with regard to the measurement of the maximum speed*. | *Annex 8 – Cl. 4.2.2.1* |

UN Regulations can be freely accessed online through the UN World Forum for the Harmonization of Vehicle Regulations (WP.29). The WP.29 website is [www.unece.org/trans/main/welcwp29.html](https://www.unece.org/trans/main/welcwp29.html).

In accordance with subsections 14(1)(b) and 14(2) of the *Legislation Act 2003*, each of these UN documents are incorporated as in force on the date this national road vehicle standard is made.

### European Union (EU) Regulations

Clause 7.2 refers to Commission Implementing Regulation (EU) 2017/1152 of 2 June 2017 setting out a methodology for determining the correlation parameters necessary for reflecting the change in the regulatory test procedure with regard to light commercial vehicles and amending Implementing Regulation (EU) No 293/2012 and Commission Implementing Regulation (EU) 2017/1153 of 2 June 2017 setting out a methodology for determining the correlation parameters necessary for reflecting the change in the regulatory test procedure and amending Regulation (EU) No 1014/2010. These EU Regulations specify a procedure for converting WLTP values for fuel consumption and carbon dioxide emissions to an NEDC equivalent.

Clauses 7.5 and 7.6 refer to Commission Regulation (EC) No 2017/1151 of the European Parliament and of the Council of 1 June 2017 supplementing Regulation (EC) No 715/2007 of the European Parliament and of the Council on type-approval of motor vehicles with respect to emissions from light passenger and commercial vehicles (Euro 5 and Euro 6) and on access to vehicle repair and maintenance information, amending Directive 2007/46/EC of the European Parliament and of the Council, Commission Regulation (EC) No 692/2008 and Commission Regulation (EU) No 1230/2012 and repealing Commission Regulation (EC) No 692/2008 as an acceptable alternative standard for measuring fuel consumption, energy consumption and range. This is the European regulation adopting the ‘Euro 6d’ and ‘Euro 6e’ emission requirements for light duty vehicles, which also mandate the measurement of fuel consumption and carbon dioxide emissions, energy consumption and range in accordance with the WLTP.

These European Union regulations may be freely accessed online through the EUR-Lex website. The English version of the EUR-Lex website [eur-lex.europa.eu/homepage.html?locale=en](https://eur-lex.europa.eu/homepage.html?locale=en).

In accordance with subsections 14(1)(b) and 14(2) of the *Legislation Act 2003*, the EU regulation is incorporated as in force on the date this national road vehicle standard is made.

* 1. **Technical standards**

Appendix B (which adopts the text of UN Regulation No. 101) includes a number of references to technical standards developed by organisations. These are:

* International Organization for Standardization (ISO)
* Society of Automobile Engineers (SAE)
* International Electrotechnical Commission (IEC)

Table 2 contains a list of the standards referenced in Appendix B.

| **Standard referenced** | **Clause in Appendix B** |
| --- | --- |
| *ISO 3675 - Crude petroleum and liquid petroleum products — Laboratory determination of density — Hydrometer method* | *Cl. 5.2.4* |
| *ISO 23828 - Fuel cell road vehicles — Energy consumption measurement — Vehicles fuelled with compressed hydrogen* | *Annex 6 – Cl. 1.4.3(h)* |
| *SAE J2572 - Recommended Practice for Measuring Fuel Consumption and Range of Fuel Cell and Hybrid Fuel Cell Vehicles Fueled by Compressed Gaseous Hydrogen* | *Annex 6 – Cl. 1.4.3(h)* |
| *IEC 62053-21 - Electricity metering equipment - Particular requirements Static meters for AC active energy* | *Annex 7 – 1.2 note (c)* |

ISO, and IEC Technical Standards are available for purchase from Intertek Inform (formerly SAI Global). Intertek Inform’s website is: <https://www.intertekinform.com/en-au/>.

SAE standards can be purchased from www.sae.org.

Subject to copyright conditions, people may also view a copy of these documents at the Offices of the Department of Infrastructure, Transport, Regional Development, Communications and the Arts in Canberra.

While not freely available, these standards are all readily accessible and widely used by vehicle manufacturers and test facilities as part of their professional libraries. Section 49 of the explanatory memorandum for the Road Vehicle Standards Bill 2018 explains the importance of being able to incorporate technical standards that are not available free of charge and this arrangement was accepted by the Parliament through the passing of the Road Vehicle Standards Bill 2018.

In accordance with subsections 14(1)(b) and 14(2) of the *Legislation Act 2003*, each of these standards are incorporated as in force on the date this national road vehicle standard is made.

1. CONSULTATION
   1. **General Consultation Arrangements**

It has been longstanding practice to consult widely on proposed new or amended vehicle standards. For many years, there has been active cooperation between the Commonwealth and the state/territory governments, as well as consultation with industry and consumer groups. Much of the consultation takes place within institutional arrangements established for this purpose.

* 1. **Specific Consultation Arrangements**

This ADR was developed in consultation with a dedicated working group established by the Department of Infrastructure, Transport, Regional Development, Communications and the Arts comprising vehicle manufacturers and technical experts. This working group met on a fortnightly basis between August and December 2024. A public consultation process was also held from December 2024 to February 2025.

1. Regulatory Impact

An impact analysis was prepared on the introduction of a new vehicle efficiency standard, based on the feedback received from stakeholders and the Australian public on a discussion paper released for comment in 2023 and a draft impact analysis released from comment in 2024. The Office of Impact Analysis assessed the impact analysis and determined that it was good practice and met Australian Government best practice regulation requirements (**OBPR22-03502**).

The impact analysis found Australians will accrue around $86 billion in net benefits and $95 billion in fuel savings by 2050. The NVES is expected to deliver abatement of about 321 million tonnes of CO2 by 2050, and about 80 million tonnes of CO2 abatement by 2035.

1. STATEMENT OF COMPATIBILITY WITH HUMAN RIGHTS

The following Statement is prepared in accordance with Part 3 of the *Human Rights (Parliamentary Scrutiny) Act 2011.*

* 1. **Overview**

ADR 81/03 specifies requirements for measuring and reporting information on a vehicle’s fuel consumption, carbon dioxide emissions, energy consumption and range.

* 1. **Human Rights Implications**

ADR 81/03 does not engage any of the human rights and freedoms recognised or declared in the international instruments listed in section 3 of the *Human Rights (Parliamentary Scrutiny) Act 2011*.

* 1. **Conclusion**

ADR 81/03 is compatible with human rights, as it does not raise any human rights issues.

1. Full name of the agreement - Agreement Concerning the Adoption of Harmonized Technical United Nations Regulations for Wheeled Vehicles, Equipment and Parts which can be Fitted and/or be Used on Wheeled Vehicles and the Conditions for Reciprocal Recognition of Approvals Granted on the Basis of these United Nations Regulations [↑](#footnote-ref-2)