

**Vehicle Standard (Australian Design Rule 81/10 — Fuel  
Consumption Labelling for Light Vehicles) 2005**

**Explanatory Statement**

**Attachment A**

**Regulation Impact Statement (ADR81/01)**

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The attached regulation impact statement was prepared by the Australian Greenhouse Office to evaluate the impact of the introduction of a revised ADR81/00 (subsequently released as ADR81/01).

The Office of Regulation Review has approved the attached RIS as satisfying the Australian Government's requirements for regulation impact statements as set out in the Government's publication *A Guide to Regulation*.



AUSTRALIAN  
**Greenhouse  
Office**

The lead Commonwealth  
agency on greenhouse  
matters

## **REGULATION IMPACT STATEMENT**

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# **PROPOSED CHANGES TO ADR 81/00 *FUEL CONSUMPTION LABELLING FOR LIGHT VEHICLES***

**As amended following follow up consultations  
gaining industry acceptance to implementation dates**

**29 May 2002**

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**Attachment A - Draft Australian Design Rule 81/01 Fuel Consumption Labelling for Light Vehicles**

**Attachment B - Call for Public Comment Draft RIS advertisement in the Weekend Australian 22<sup>nd</sup> December 2001**

**Attachment C - Revised Fuel Consumption Label design and dimensions**

# 1. INTRODUCTION

1. Australia's target under the Kyoto Protocol to the United Nations Framework Convention on Climate Change requires it to limit the growth of its greenhouse gas emissions to eight percent above 1990 levels by 2008-2012.
2. In 1999, the transport sector accounted for 16.1 percent of Australia's greenhouse emissions<sup>1</sup>. This represents a 20.3 percent increase in transport greenhouse emissions since 1990.<sup>2</sup> In his 1997 statement on Australia's response to climate change<sup>3</sup>, the Prime Minister called for a mandatory model-specific fuel consumption labelling scheme for all new vehicles sold in Australia. The development of such a scheme was a key element of the Environmental Strategy for the Motor Vehicle Industry as outlined in measure 5.10 of the *National Greenhouse Strategy*<sup>4</sup>.
3. Since 1 January 2001, Australian Design Rule (ADR) 81/00 *Fuel Consumption Labelling for Light Vehicles* has required that all new vehicles up to 2.7 tonnes gross vehicle mass (GVM) must carry a fuel consumption label on the windscreen at the point of sale.
4. The Prime Minister's 1997 statement also announced the progressive tightening of noxious emissions standards with a view to harmonisation with international standards by 2006. To this end, new emission standards under ADR 79/00 *Emission Control for Light Vehicles* (known as Euro 2) will commence on 1 January 2003. ADR 79/00 will apply to all passenger and goods carrying vehicles with a GVM less than or equal to 3.5 tonnes.
5. The Commonwealth Government proposes to extend the fuel consumption labelling scheme to include all new vehicles up to 3.5 tonnes GVM and to require reporting of carbon dioxide (CO<sub>2</sub>) emissions on the label. It was intended at the time of circulation of the draft Regulation Impact Statement that this would be achieved through the replacement of ADR 81/00 with ADR 81/01 (Attachment A) on 1 January 2003, concurrent with the introduction of new Euro 2 emission standards through ADR 79/00.

Following further consideration of comments received on the draft and further consultations with industry in May 2002 it is now proposed that the date for the replacement of ADR 81/00 with ADR 81/01 will be 1 July 2003.

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<sup>1</sup> Australian Greenhouse Office, 2001, *1999 National Greenhouse Gas Inventory*.

<sup>2</sup> Australian Greenhouse Office, 2001, *National Greenhouse Gas Inventory Analysis of Trends and Greenhouse Indicators 1990 to 1999*.

<sup>3</sup> Statement by the Prime Minister of Australia, the Hon John Howard MP, *Safeguarding the Future: Australia's Response to Climate Change*, 20 November 1997

<sup>4</sup> Australian Greenhouse Office, 1998, *The National Greenhouse Strategy : Strategic Framework for Advancing Australia's Greenhouse Response*, p62.

## 2. STATEMENT OF THE PROBLEM

6. This Regulation Impact Statement addresses the following problems:
- The fuel consumption label aims to raise consumer awareness of fuel efficient vehicles and their role in helping to reduce greenhouse gas emissions. There is currently a lack of easily accessible fuel consumption information for buyers of new vehicles with a GVM greater than 2.7 tonnes and for purchasers of diesel four wheel drives (4WDs) and light commercial vehicles (LCVs). There is also currently a lack of any model specific information on the amount of CO<sub>2</sub> produced by motor vehicles; and
  - The commencement of ADR 79/00 *Emission Control for Light Vehicles* on 1 January 2003 will see a new test method for vehicle emissions introduced. This same test can also be used to calculate fuel consumption and CO<sub>2</sub> emissions. If ADR 81/00 is not amended, from January 2003, vehicle manufacturers and importers will be required by law to determine fuel consumption for fuel labelling using one test and to determine compliance with the emissions standard using a different test. This would lead to increased cost to industry with no corresponding benefit to consumers.
- These issues are discussed in greater detail below.

### *Lack of easily accessible information*

7. Fuel consumption labelling is currently mandatory for new vehicles up to 2.7 tonnes GVM. The label scheme applies to all petrol, diesel and LPG passenger vehicles up to 2.7 tonnes GVM and to petrol 4WDs and petrol LCVs up to 2.7 tonnes.
8. The Bureau of Transport Economics (BTE)<sup>5</sup> estimates that approximately 10 percent of the Australian fleet is between 2.7 and 3.5 tonnes GVM. By inference, it is assumed that approximately 10 percent of new vehicles sold each year would be between 2.7 and 3.5 tonnes GVM.
9. At present, fuel consumption information for new vehicles between 2.7 and 3.5 tonnes GVM and for diesel 4WDs and LCVs is not readily accessible to purchasers of new vehicles. Some fuel consumption information is available through the Commonwealth's *Fuel Consumption Guide*<sup>6</sup> and from some automobile associations, however neither source provides comprehensive and comparable fuel consumption information for all new vehicle models up to 3.5 tonnes GVM.
10. The *Fuel Consumption Guide* has been produced by the Commonwealth Government since 1981. The guide details model specific fuel consumption figures for new vehicles less than 2.7 tonnes GVM. Information in the guide is provided voluntarily by car manufacturers, assemblers and importers. In 1992, fuel consumption information for petrol 4WDs and LCVs less than 2.7 tonnes

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<sup>5</sup> Personal communication, Dr David Cosgrove, Principal Research Officer, BTE 2001

<sup>6</sup> Australian Greenhouse Office, 2001, *2000-2001 Fuel Consumption Guide*.

GVM was included in the guide. Information on diesel fuelled 4WDs and LCVs is not included as this information is not readily available.

11. Some automobile associations (eg NRMA) provide fuel consumption data for some passenger vehicles, 4WDs and LCVs, however information is not provided for all new models and fuel consumption data is derived by road test. A significant issue with using road test data is that each test is different, with too many variables like weather, traffic conditions and road conditions to be able to guarantee that the results are directly and fully comparable.
12. CO<sub>2</sub> is the main greenhouse gas responsible for global warming. CO<sub>2</sub> comprises 94% of the greenhouse gas emissions from the transport sector.<sup>7</sup> At present there is no information on the amount of CO<sub>2</sub> produced by different model passenger and goods carry vehicles up to 3.5 tonnes GVM.

*Duplication of fuel consumption test requirement*

13. In 1997, the Prime Minister announced the progressive tightening of noxious emissions standards with a view to harmonisation with international standards by 2006<sup>3</sup>.
14. As part of this process, on 20 December 1999, the Minister for Transport and Regional Services made a Determination on National Standards for Road Vehicles under Section 7 of the *Motor Vehicle Standards Act 1989*. The Determination introduced a package of five new emissions ADRs. ADR 79/00 *Emission Control for Light Vehicles* is included in the package and is due to commence on 1 January 2003. It will apply to all passenger and goods carrying vehicles with a GVM less than or equal to 3.5 tonnes.
15. Maintenance of current labelling arrangements after 1 January 2003 would lead to a duplication of fuel consumption testing.
16. Currently ADR 81/00 requires manufacturers and importers to use the test in AS 2877 - 1986<sup>8</sup> for the purpose of fuel consumption labelling. The current ADR for noxious emissions (ADR 37/01<sup>9</sup>) uses the same testing procedure to measure emissions. From 1 January 2003, the new emissions design rule (ADR 79/00) will take effect. This ADR requires manufacturers and importers to use emissions testing procedures specified in a United Nations Economic Commission for Europe Regulation 83 (UN ECE R 83<sup>10</sup>). These testing procedures are different from those used to calculate fuel consumption under ADR 81/00.

**Why is government action needed to correct these problems?**

17. Mandatory fuel consumption labelling through ADR 81/00 was originally introduced to address a market failure to provide consistent fuel consumption information for purchasers of new vehicles. The reasons why the Commonwealth

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<sup>7</sup> Australian Greenhouse Office, 2001, *NGGI Factsheet 3: Energy: Transport*

<sup>8</sup> Standards Australia, *AS 2877 - 1986 Methods of Test for Fuel Consumption of Motor Vehicles Designed to Comply with Australian Design Rules 37 and 40, 1986*

<sup>9</sup> ADR 37/01 *Emission Control for Light Vehicles*

<sup>10</sup> UN ECE Regulation 83 - *Uniform Provisions Concerning The Approval Of Vehicles With Regard To The Emissions Of Pollutants According To Engine Fuel Requirements.*

pursued a regulatory approach to fuel consumption labelling rather than a non-regulatory approach were outlined in the draft Regulation Impact Statement on fuel consumption labelling released for public comment in 1999<sup>11</sup>. In summary, these were:

- the introduction of model-specific labelling through a voluntary mechanism had not been achieved despite a significant period of negotiation with the motor vehicle industry;
- the FCAI informed the Government that it did not support the concept of model-specific fuel consumption labelling, favouring a “generic” fuel consumption label which advises buyers to refer to the Fuel Consumption Guide;
- model-specific labelling was tested on recent new car buyers and received a positive reaction;
- a mandatory approach to model-specific fuel consumption labelling offers protection for industry by ensuring the accuracy and comparability of fuel consumption information provided and by requiring that all manufacturers and importers provide the same level of information about their vehicles.

18. Government action, specifically regulatory action, is now needed to align mandatory fuel consumption test methods so the same test can be used for fuel consumption labelling and for emissions testing.
19. The new emissions standard (ADR 79/00) applies to all vehicles up to 3.5 tonnes GVM whereas the current standard (ADR 37/01) only applies to vehicles up to 2.7 tonnes. As emissions and fuel consumption can be determined from the same test, the proposal to align the test method for fuel consumption in ADR 81 with that applied under ADR 79/00 will mean that the information required to allow expansion of fuel consumption labelling from the current 2.7 tonnes GVM to 3.5 tonnes GVM will be available without imposing an additional cost burden on manufacturers.
20. A revised ADR 81 would address the current lack of easily accessible fuel consumption information for vehicles over 2.7 tonnes GVM, the lack of any model specific information on CO<sub>2</sub> emissions, and avoid a requirement for different tests to determine the data required for both the emissions and labelling ADRs. It is proposed that ADR 81/00 be replaced by ADR 81/01 on 1 January 2003, concurrent with the introduction of new Euro 2 emission standards under ADR 79/00.

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<sup>11</sup> Australian Greenhouse Office, *Call for Public Comment: Draft Regulatory Impact Statement: Draft Australian Design Rule on Fuel Consumption Labelling for New Passenger Cars*, April 1999 available at [www.greenhouse.gov.au/transport/comments.html](http://www.greenhouse.gov.au/transport/comments.html)

### 3. OBJECTIVES

#### **What are the objectives of government action?**

21. The objective of the expansion of mandatory fuel consumption labelling to include all new vehicles up to 3.5 tonnes GVM is to promote consumer demand for fuel efficient vehicles and vehicles with a lower greenhouse impact by making comparative model specific information available to buyers. Encouraging consumer preferences toward vehicles of greater fuel efficiency will help reduce greenhouse gas emissions from transport and implementation of the Environmental Strategy for the Automotive Industry as outlined in the Prime Minister's 1997 statement *Safeguarding the Future: Australia's Response to Climate Change*. In addition, introducing mandatory CO<sub>2</sub> labelling will raise consumer awareness of the role fuel efficient vehicles play in helping to reduce greenhouse gas emissions and the relative impacts of different fuel types.
22. The objective of aligning fuel consumption test methods with emissions testing requirements is to remove regulatory duplication and reduce the cost of compliance to industry.

#### **Is there a regulation/policy currently in place? Who administers it?**

23. At present, mandatory fuel consumption labelling is required under ADR 81/00. ADR 81/00 requires that all new vehicles sold in Australia carry a fuel consumption label on the windscreen at the point of sale. The label scheme applies to all petrol, diesel and LPG vehicles up to 2.7 tonnes GVM, and to petrol 4WDs and LCVs up to 2.7 tonnes. The label shows how many litres of fuel the vehicle would use to travel 100 kilometres, in city conditions, tested according to standards set down under Australian Standard AS 2877 - 1986. ADR 81/01 would be administered under the same arrangements as ADR 81/00. All ADRs are administered by the Commonwealth Department of Transport and Regional Services (DOTARS).

### 4. OPTIONS

#### **OPTION 1 - STATUS QUO - MANDATORY FUEL CONSUMPTION LABELLING UNDER ADR 81/00**

24. This option involves the continuation of current arrangements under ADR 81/00, where new vehicles up to 2.7 tonnes must carry a fuel consumption label showing how many litres of fuel the car would use to travel 100 kilometres, in city conditions, when tested according to AS 2877 -1986. Fuel consumption information for some popular vehicles greater than 2.7 tonnes GVM will continue to be available from some motoring associations, however this information is likely to be based on road test data and as such will not be directly comparable across models.



## **OPTION 2- REPLACE ADR 81/00 WITH MANDATORY FUEL CONSUMPTION LABELLING UNDER ADR 81/01**

25. This option involves the replacement of ADR 81/00 with new Australian Design Rule ADR 81/01 to commence on 1 January 2003, coinciding with the commencement of ADR 79/00. The reasons for introducing explicit government regulation for model specific fuel consumption labelling were discussed in the draft regulation impact statement *Draft Australian Design Rule on Fuel Consumption Labelling for New Passenger Cars*<sup>11</sup>. This document is available on the Internet at [www.greenhouse.gov.au/transport/comments.html](http://www.greenhouse.gov.au/transport/comments.html). Regulation via an Australian Design Rule remains the appropriate means of ensuring universal application of the requirement for model specific fuel consumption labelling for all new passenger vehicles sold in Australia.
26. Under Option 2 ADR 81/01 would differ from the existing Australian Design Rule in the following ways:
- The fuel consumption value applied to the fuel consumption label would result from the fuel consumption test as specified in UN ECE R 101<sup>12</sup> (instead of the current AS 2877 test). Introduction of the new Australian Design Rule, ADR 81/01, on 1 January 2003 would coincide with the introduction of ADR 79/00 which also references the same test method for the purposes of emissions testing;
  - The mandatory model specific fuel labelling requirements would be expanded from the current limit of 2.7 tonnes GVM to include all new passenger and goods carrying vehicles less than or equal to 3.5 tonnes GVM. This expansion would address the current lack of easily accessible fuel consumption information for buyers of new vehicles with a GVM greater than 2.7 tonnes or for purchasers of diesel 4WDs and LCVs. Further, this expansion is consistent with ADR 79/00 which will apply to all passenger and goods carrying vehicles with a GVM less than or equal to 3.5 tonnes. The alignment of mass categories between ADR 79/00 and ADR 81/01 should minimise the need for any additional testing;
  - Fuel consumption values would be reported to the nearest 0.1 L/100 km (in accordance with UN ECE R 101), replacing the current rounding arrangements under ADR 81/00. This will provide more accurate fuel consumption information for new vehicle purchasers; and
  - The wording on the fuel consumption label would be altered to refer to the new Australian Design Rule (ie "When tested to ADR 81/01") and to include the internet address for the fuel consumption guide.

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<sup>12</sup> UN ECE Regulation 101 – *Uniform Provisions Concerning The Approval Of Passenger Cars Equipped With An Internal Combustion Engine With Regard To The Measurement Of The Emission Of Carbon Dioxide And Fuel Consumption And Of Categories M1 And N1 Vehicles Equipped With An Electric Power Train With Regard To The Measurement Of Electric Energy Consumption And Range.*

### **OPTION 3 - REPLACE ADR 81/00 WITH MANDATORY FUEL CONSUMPTION LABELLING AND REPORTING OF CARBON DIOXIDE EMISSIONS UNDER ADR 81/01**

27. As with Option 2, this option involves the replacement of ADR 81/00 with a new Australian Design Rule (ADR 81/01) commencing on 1 January 2003 to coincide with the commencement of ADR 79/00. The new Australian Design Rule would modify and expand mandatory model specific fuel consumption labelling as specified above in Option 2, but would also introduce an additional requirement for mandatory, model specific CO<sub>2</sub> emission labelling for all new petrol, LPG and diesel passenger vehicles, 4WDs and LCVs up to 3.5 tonnes GVM. An illustration of the label format is included at Attachment A.
28. This option takes advantage of the shift to fuel consumption testing under UN ECE R 101 which includes uniform provisions for the measurement of CO<sub>2</sub> emissions which are then used, in conjunction with other data, to calculate fuel consumption. This option would not require additional testing to that proposed in Option 2, but rather requires the reporting of information already gathered. CO<sub>2</sub> (grams per kilometre) information would be added to the existing fuel consumption label.
29. Greenhouse gas emissions from transport are mostly CO<sub>2</sub> (94%), with small amounts of nitrous oxide (5.3% ) and methane (0.7%)<sup>13</sup>. Some research suggests that many people are not aware that vehicles produce CO<sub>2</sub><sup>14</sup>. Mandatory reporting of model specific CO<sub>2</sub> emissions will clearly establish the link between fuel consumption and greenhouse gas emissions and provide information for purchasers of new vehicles with the intention of influencing their choice in favour of models that use the least fuel. This is consistent with the Australian Government's policy of seeking a reduction of the greenhouse gas intensity of final energy demand through greater choice in the selection of less greenhouse intensive vehicles and the increased use of lower greenhouse gas intensive fuels<sup>15</sup>.
30. Inclusion of CO<sub>2</sub> information on fuel consumption labels would more accurately represent the direct greenhouse impact of vehicles fuelled by alternative fuels. Alternative fuels, such as LPG, produce less CO<sub>2</sub> per litre than petrol. However the lower energy density of LPG compared to petrol or diesel means that a vehicle fuelled by LPG may have a higher fuel consumption value than the same model vehicle fuelled by petrol. Inclusion of the CO<sub>2</sub> value in addition to the fuel consumption value for new vehicles would help raise consumer awareness of the relative greenhouse gas impact of different fuel types.
31. The approach proposed in Option 3 is consistent with the European Commission Directive 1999/94/EC, which requires that a label showing fuel economy and CO<sub>2</sub> emissions must be attached to the windshield or displayed adjacent to all new passenger cars at the point of sale. This environmental information enables purchasers of new vehicles to see the fuel efficiency and CO<sub>2</sub> emissions of any

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<sup>13</sup> Australian Greenhouse Office, 2001, *National Greenhouse Gas Inventory 1999 Factsheet 3: Energy: Transport*.

<sup>14</sup>Transport Research Institute, 2000, *Choosing Cleaner Cars: The Role of Labels and Guides*.

<sup>15</sup> Australian Greenhouse Office, 1999, *Corporate Plan 1999-2001*.

new vehicle and to make comparisons between makes and models before deciding on a new vehicle purchase.

## 5. IMPACT ANALYSIS

### OPTION 1 – STATUS QUO – MANDATORY FUEL CONSUMPTION LABELLING UNDER ADR 81/00

32. Often, the continuation of current arrangements provides a least cost option. In this instance however, continuation of labelling arrangements under ADR 81/00 will increase costs as it would require increased testing. This is because when a manufacturer certifies a vehicle in accordance with ADR 79/00, the same test method would no longer be applicable to both fuel consumption and emissions as is currently the case. This would result in additional cost to industry without any additional benefit to purchasers of new vehicles. The maintenance of current labelling arrangements after 1 January 2003 would lead to a duplication of fuel consumption testing.
33. In addition, continuation of existing labelling arrangements will not address the current lack of easily accessible fuel consumption information for buyers of new vehicles with a GVM greater than 2.7 tonnes or for purchasers of diesel 4WDs and LCVs. Some fuel consumption information is available through the Commonwealth's *Fuel Consumption Guide* and from some automobile associations, however neither source provides comprehensive and comparable fuel consumption information for all new vehicle models up to 3.5 tonnes GVM. Further, continuation of Option 1 does not address the current lack of any model specific information on the amount of CO<sub>2</sub> produced by vehicles less than or equal to 3.5 tonnes GVM.
34. Mandatory fuel consumption labelling was originally introduced to address a market failure to provide consistent fuel consumption information for purchasers of new vehicles. ADR 81/00 only partially addresses this lack of information by providing fuel consumption information for vehicles with a GVM up to 2.7 tonnes.
35. Continuation of current mandatory fuel consumption labelling requirements as required under ADR 81/00 is not considered feasible by the Government because:
- it conflicts with the Prime Minister's stated objective of harmonisation with international emissions standards by 2006;
  - it would impose unnecessary testing burdens and additional costs on industry;
  - it does not address the current lack of easily accessible fuel consumption information for buyers of new vehicles with a GVM greater than 2.7 tonnes or for purchasers of diesel 4WDs and LCVs; and
  - it does not address the current lack of any model specific information on the amount of CO<sub>2</sub> produced by vehicles less than or equal to 3.5 tonnes GVM.

36. For these reasons, continuation of mandatory fuel consumption labelling requirements under ADR 81/00 is not appropriate and this Option will not be considered further.

## **OPTION 2- REPLACE ADR 81/00 WITH MANDATORY FUEL CONSUMPTION LABELLING UNDER ADR 81/01**

### **Who is affected by the problem and who is likely to be affected by the proposed solution?**

37. Key stakeholders include:

- The community;
- Purchasers of new vehicles, as represented by the Australian Automobile Association (AAA);
- Retailers of new vehicles, as represented by the Motor Trades Association of Australia (MTAA); and
- Manufacturers and importers of new vehicles, as represented by the Federal Chamber Automotive Industries (FCAI).

### **How will the option affect existing regulations and the roles of existing regulatory authorities?**

38. Since 1 January 2001, ADR 81/00 has required all new passenger vehicles, off road vehicles and LCVs up to 2.7 tonnes GVM sold in Australia to carry a fuel consumption label on the windscreen at the point of sale. Option 2 replaces ADR 81/00 with ADR 81/01. ADR 81/01 would require all new petrol, diesel and LPG vehicles less than or equal to 3.5 tonnes GVM to carry a fuel consumption label on the windscreen at the point of sale. Also, ADR 81/01 would replace the fuel consumption test in AS2877 - 1986 with that of UN ECE R 101.
39. As with ADR 81/00, ADR 81/01 will require that “Every vehicle shall have applied to its windscreen a fuel consumption label...”. The ADR does not prescribe where in the distribution chain (ie manufacturer, importer, distributor or retailer) the fuel consumption label must be applied. However, as the responsibility for ensuring ADR compliance rests with the vehicle manufacturer, the practice is that the label is generally applied by the vehicle manufacturer.

### **What are the expected impacts of the proposed options as likely benefits or likely costs. Which groups are likely to experience these benefits and costs and what extent are the impacts likely to be?**

#### *Costs*

40. The costs presented below are those incurred by the purchasers of new vehicles of GVM between 2.7 and 3.5 tonnes and car manufacturers and importers. The costs incurred are as a result of the replacement of ADR 81/00 with ADR 81/01 and the subsequent expansion of the fuel consumption label to include all new vehicles

less than or equal to 3.5 tonnes GVM. That is, the cost incurred from the additional labelling of vehicles between 2.7 and 3.5 tonnes GVM.

41. Cost to manufacturers and importers was based on BTCE<sup>16</sup> figures for cost of printing and affixing labels (\$5 per label) and 10 percent<sup>5</sup> (as discussed in paragraph 8) of new vehicle sales for 2000. New vehicle sales were obtained from the VFACTS<sup>17</sup> 2000 database. Based on these figures, the cost of printing and affixing additional labels for ADR 81/01 is estimated to be an additional \$393,500 per year.
42. BTCE<sup>16</sup> reported that additional costs incurred by manufacturers and importers as a result of labelling would be passed on to consumers through increased vehicle price. Although this is likely to be small (approximately \$5 per vehicle), the total cost of ADR 81/01 to new vehicle purchasers is estimated to be \$393,500 per year.
43. An additional issue with both the existing fuel consumption scheme and the scheme proposed in Option 2 is that the fuel consumption value alone may not accurately represent the direct greenhouse impact of alternatively fuelled vehicles. Alternative fuels, such as LPG, produce less CO<sub>2</sub> per litre than petrol. However the lower energy density of alternative fuels compared to petrol or diesel means that a vehicle fuelled by LPG may have a higher fuel consumption value than the same model vehicle fuelled by petrol, despite giving a better greenhouse outcome.
44. Aligning the timing of ADR 81/01 and ADR 79/00 will mean that during the transition year (2003) some vehicle models will be labelled in accordance with ADR 81/00 and others with ADR 81/01. Thus the transition has some potential to confuse purchasers who may be comparing models labelled under different versions of ADR 81, as even though recent testing indicates a good correlation between the two tests<sup>18</sup>, some vehicles do give different results on the two tests. This confusion could be avoided by mandating an “overnight” transition from ADR 81/00 to ADR 81/01. However, this approach would impose significant costs on manufacturers who would be required to retest many models for fuel consumption and many individual vehicles would have to be re-labelled.
45. A summary of costs for Option 2 is presented in Table 1.

**Table 1: Expected Costs of Option 2**

| Group Impacted  | Cost Description   | Cost  |
|---|--|---|
| Car manufacturers/importers (may be fully passed on to purchasers of new vehicles between 2.7 and 3.5 tonnes GVM) | <ul style="list-style-type: none"> <li>Cost of printing and affixing fuel consumption labels on vehicles between 2.7 and 3.5 tonnes GVM</li> </ul> | <ul style="list-style-type: none"> <li>\$393,500 per year (assuming \$5 per label)</li> </ul> |

<sup>16</sup> BTCE, 1996, *Transport and Greenhouse: Costs and options for reducing emissions. Report 94.*

<sup>17</sup> VFACTS, 2000, data and information supplied by the Federal Chamber of Automotive Industries (FCAI).

<sup>18</sup> DOTARS, *Comparative Vehicle Emissions Study*, 2001. Available at [www.dotrs.gov.au/land/Environment/cover-page.htm](http://www.dotrs.gov.au/land/Environment/cover-page.htm)

### Benefits

46. Similar to the costs section, the benefits are assessed as those that eventuate as a result of the replacement of ADR 81/00 with ADR 81/01 and the subsequent extension of fuel consumption labelling to include vehicles with a GVM of between 2.7 and 3.5 tonnes GVM. The general community, purchasers of new vehicles with a GVM of between 2.7 and 3.5 tonnes and car manufacturers will experience benefits.
47. To the extent that extending the fuel consumption labelling scheme influences consumer behaviour, decreased fuel consumption will also lead to reduced vehicle emissions, including CO<sub>2</sub>, contributing to Australia's target under the Kyoto Protocol. In its submission on the draft Regulation Impact Statement *Proposed Changes to ADR 81/00 Fuel Consumption Labelling for Light Vehicles*, the Motor Vehicle Environment Committee (MVEC) noted that if the new labelling requirement encourages only 10% of buyers in the segment of the market affected to buy a vehicle with only one litre per hundred kilometres better fuel consumption than would otherwise have been purchased, the likely benefit over 10 years is around \$69 million in fuel savings at \$1.00 per litre.
48. Decreased fuel consumption will also lead to health benefits from reduced vehicle emissions other than CO<sub>2</sub>, such as oxides of nitrogen (NO<sub>x</sub>), carbon monoxide (CO), hydrocarbons and particulates. Specific information on the avoided health costs arising from expansion of the fuel consumption label is not available.
49. Introduction of ADR 81/01 will bring about a significant ongoing benefit to manufacturers and importers. Aligning the timing of ADR 81/01 and ADR 79/00 will remove the need to do separate tests for fuel consumption and emissions. Further, the FCAI has indicated that it believes that the number of fuel consumption tests required to comply with ADR 81/01 will be significantly less than those required under ADR 81/00. No data is currently available to quantify this benefit.
50. ADR 81/01 incorporates testing which is harmonised with international standards. This has potential benefits to exporters and importers of vehicles, as reduced testing will be required. No data is available to quantify this benefit.
51. A summary of benefits for Option 2 is presented in Table 2.

**Table 2: Expected Benefits of Option 2**

| Group Impacted  | Benefit description   | Benefit  |
|---|---|--|
| General Community   | <ul style="list-style-type: none"> <li>Reduced CO<sub>2</sub> equivalent emissions</li> <li>Health benefits from reduced noxious emissions (NO<sub>x</sub>, CO and particulates)</li> </ul>                   | Assist implementation of the <i>Environmental Strategy for the Motor Vehicle Industry</i> . Not quantified |
| Purchasers of new vehicles between 2.7 and 3.5 tonnes GVM | <ul style="list-style-type: none"> <li>Fuel saving</li> </ul>   | \$69 million over 10 years (MVEC estimate, based on a number of assumptions as per paragraph 47)           |
| Car manufacturers and importers                           | <ul style="list-style-type: none"> <li>Reduced cost of fuel consumption testing</li> <li>Internationally harmonised testing standards reduce compliance costs for vehicle importers and exporters.</li> </ul> | Not quantified   |

### Key data and assumptions

52. There are currently 12.3 million registered motor vehicles (including motor cycles) on the road (BTE)<sup>5</sup>.
53. Approximately 10.5 million registered vehicles (86 percent) are less than 2.7 tonnes GVM and therefore already covered by the fuel consumption label (BTE)<sup>5</sup>.
54. Approximately 1.26 million (approximately 10 percent of the total fleet) registered road vehicles are between 2.7 and 3.5 tonnes GVM (BTE)<sup>5</sup>. These are not labelled for fuel consumption under ADR 81/00.
55. VFACTS<sup>17</sup> indicate that 787,100 new vehicles were sold in Australia in 2000. Given that 10 percent of the total registered fleet was in the category 2.7 and 3.5 tonnes GVM, it was assumed that 10 percent (approximately 78,700) of new vehicles sold were also in this category.
56. The BTCE<sup>16</sup> states that the cost of affixing labels depends mainly on assembly line procedures. BTCE estimate that the approximate cost of printing and affixing labels incurred by manufacturers and importers would be \$5.00 per label.
57. It was assumed that administration and enforcement costs incurred by Government would not increase as a result of the expansion of the labelling. As with all ADRs, ADR 81 is enforced by DOTARS under the *Motor Vehicle Standards Act* 1989. Enforcement of ADR 81/01 will remain the same as for ADR 81/00. Further details of enforcement of ADRs are available from DOTARS.
58. It was assumed that the cost of providing consumer education through point of sale material and pamphlets would not increase as a result of expanding application of the label.
59. In consultation with DOTARS it was further assumed that:
  - There is no technical barrier to test vehicles with a GVM of up to 3.5 tonnes as this testing will be required under ADR 79/00;
  - The cost of fuel consumption testing will not increase in moving to ADR81/01; and
  - Manufacturers will not need to upgrade testing equipment in order to comply with ADR 81/01, as the equipment required for ADR79/00 will meet the needs of ADR81/01.

### Summary of impacts for Option 2

60. There are a number of benefits and costs associated with extending fuel consumption labelling to include vehicles between 2.7 and 3.5 tonnes GVM. Costs are mainly associated with the physical printing and affixing of the label to a wider range of vehicle models. Many of the benefits are difficult to quantify but are nevertheless significant. The major benefit is from harmonising /streamlining fuel consumption and emissions tests with international standards. Individual

motorists, where the presence of a fuel consumption label influences their decision as to which model of vehicle to purchase, will benefit from reduced fuel consumption (and associated costs) over the life of their vehicle. Those who would have incurred higher search costs in obtaining fuel consumption advice will directly benefit from the extension of the mandatory labelling scheme. To the extent that the scheme changes the pattern of demand for vehicles of 2.7 to 3.5 tonnes GVM towards more fuel efficient vehicles, the community will benefit from lower health costs associated with less pollution and lower greenhouse gas emissions from this dominant part of the Australian road transport sector and lower vehicle operating costs.

### **OPTION 3 - REPLACE ADR 81/00 WITH MANDATORY FUEL CONSUMPTION LABELLING AND REPORTING OF CARBON DIOXIDE EMISSIONS UNDER ADR 81/01**

61. As with Option 2, this option involves the replacement of ADR 81/00 with a new Australian Design Rule (ADR 81/01) commencing on 1 January 2003 to coincide with the commencement of ADR 79/00. The new Australian Design Rule would modify and expand mandatory model specific fuel consumption labelling as specified above in Option 2, but would also introduce an additional requirement for the label to show CO<sub>2</sub> emissions in grams per kilometre for all new petrol, LPG and diesel passenger vehicles, 4WDs and LCVs up to 3.5 tonnes GVM. The inclusion of CO<sub>2</sub> information on the fuel consumption label aims to complement fuel efficiency information in raising consumer awareness of fuel efficient vehicles and their role in helping to reduce greenhouse gas emissions.
62. The impact analysis for Option 3 builds on the analysis for Option 2. The problem being addressed and key stakeholders affected are the same for Option 3 as for Option 2.

#### **How will the option affect existing regulations and the roles of existing regulatory authorities?**

63. Option 3 is similar to Option 2 in that it replaces ADR 81/00 with ADR 81/01. However, Option 3 would introduce an additional requirement for mandatory model specific CO<sub>2</sub> emissions labelling for all new petrol, LPG and diesel passenger vehicles, 4WDs and LCVs up to 3.5 tonnes GVM. The label will be re-designed to accommodate a CO<sub>2</sub> value. As with the existing fuel consumption labelling requirements and Option 2, the ADR under Option 3 would be managed by DOTARS.

#### **What are the expected impacts of the proposed options as likely benefits or likely costs? Which groups are likely to experience these benefits and costs and what extent are the impacts likely to be?**

##### *Costs*

64. While the costs of Option 3 are essentially the same as those for Option 2, there would be an additional printing cost to the manufacturer associated with the



redesigned label. Inclusion of the CO<sub>2</sub> value on the label requires an additional colour and a slightly larger label. A quote obtained by the Australian Greenhouse Office indicated that for a print run of 25,000 labels, the cost per label would increase from 15 to 17 cents. Assuming that approximately 800,000 new vehicles (less than or equal to 3.5 tonnes GVM) would require labelling each year, label printing costs would increase by approximately \$16,000.

65. CO<sub>2</sub> information is usually reported as grams of CO<sub>2</sub> per kilometre, which is less meaningful (in numerical terms) than the more familiar fuel consumption value. Additional information and education initiatives may be required to provide purchasers of new vehicles with a reference (eg high, medium, low)<sup>14</sup> for the CO<sub>2</sub> value and to minimise any potential for confusion. Education and information costs would be borne by the Commonwealth.

66. A summary of costs for Option 3 is provided in Table 3.

**Table 3: Expected Costs of Option 3**

| Group Impacted   | Cost Description  | Cost   |
|--|---|--|
| Car manufacturers/importers<br>(may be fully passed on to purchasers of new vehicles between 2.7 and 3.5 tonnes GVM) | <ul style="list-style-type: none"> <li>Cost to print and affix as per Option 2</li> <li>Additional print cost resulting from inclusion of CO<sub>2</sub> information on all vehicles ≤ 3.5 tonnes GVM.</li> </ul> | <ul style="list-style-type: none"> <li>\$393,500 per year (\$5 per label)</li> <li>Approximately \$16,000</li> </ul> |
| Commonwealth Government  | <ul style="list-style-type: none"> <li>Education and information programs</li> </ul>  | <ul style="list-style-type: none"> <li>Not quantified</li> </ul>   |

### *Benefits*

67. In addition to the benefits identified under Option 2, Option 3 includes benefits from the provision of CO<sub>2</sub> information on the label. Inclusion of the CO<sub>2</sub> value, with effective supporting material could assist consumers to make the link between fuel consumption and greenhouse gas emissions, and thus further promote the purchase of vehicles with lower fuel consumption. It would also allow for more accurate comparison of the relative greenhouse impact of vehicles with different fuel types.

68. A summary of benefits for Option 3 is provided in Table 4.

**Table 4: Expected Benefits of Option 3**

| Group Impacted  | Benefit description  | Benefit  |
|---|--|--|
| General Community   | <ul style="list-style-type: none"> <li>Reduced CO<sub>2</sub> equivalent emissions</li> <li>Health benefits from reduced noxious emissions (NO<sub>x</sub>, CO and particulates)</li> <li>Better information on greenhouse impacts of different fuels</li> </ul> | Assist implementation of the <i>Environmental Strategy for the Motor Vehicle Industry</i> . Not quantified |
| Purchasers of new vehicles between 2.7 and 3.5 tonnes GVM | <ul style="list-style-type: none"> <li>Fuel saving as per Option 2</li> </ul>  | \$69 million over 10 years (MVEC estimate, based on a number of assumptions as per paragraph 47)           |
| Car manufacturers and importers                           | <ul style="list-style-type: none"> <li>Reduced cost of fuel consumption testing as per Option 2</li> <li>Internationally harmonised testing standards reduce compliance costs for vehicle importers and exporters</li> </ul>                                     | Not quantified   |

### **Key data and assumptions**

69. Under UN ECE R 101 the fuel consumption value is calculated mathematically based on the measurement of a number of emissions and fuel parameters including CO<sub>2</sub>. It is therefore assumed that manufacturers and importers do not incur any additional expense for the testing and reporting of CO<sub>2</sub> emissions.
70. It is assumed that the least cost option of providing CO<sub>2</sub> emission information to consumers is through expanding the current fuel consumption label to include information on CO<sub>2</sub> emissions, rather than requiring one label for fuel consumption and one for CO<sub>2</sub> emissions. It is assumed that the cost of printing and affixing the label to vehicles between 2.7 and 3.5 tonnes would remain at \$5 per label and that including CO<sub>2</sub> emissions information would slightly increase (approximately 2 cents per label) printing costs for all fuel consumption labels.
71. The fuel consumption and CO<sub>2</sub> emissions label would be applied to all new passenger and goods carrying vehicles less than or equal to 3.5 tonnes GVM.

### **Summary of impacts for Option 3**

72. The costs and benefits for Option 3 are similar to those for Option 2. In addition, Option 3 provides significant benefits through the provision of more information to consumers enabling them to associate the environmental and greenhouse impact of vehicle use. Individual motorists, where the presence of CO<sub>2</sub> information on the fuel consumption label influences their decision as to which model of vehicle to purchase, may benefit from reduced fuel consumption (and associated costs) over the life of their vehicle. Those who would have incurred higher search costs in obtaining CO<sub>2</sub> emissions advice will directly benefit from inclusion of this information on the fuel consumption label. To the extent that the CO<sub>2</sub> information changes the pattern of demand for vehicles of 2.7 to 3.5 tonnes GVM towards more fuel efficient vehicles, the community will benefit from lower health costs associated with less pollution and fewer greenhouse gas emissions from this part of the Australian road transport sector. Inclusion of the CO<sub>2</sub> emissions value in addition to the fuel consumption value for new vehicles will help raise consumers awareness of the relative greenhouse impact of different fuel types.
73. Additional information and education may be required to provide purchasers of new vehicles with a reference for the CO<sub>2</sub> emissions value and to minimise any potential for confusion. An additional cost associated with Option 3 arises from the need to redesign the label to include CO<sub>2</sub> information. These represent comparatively small one-off costs for Government in return for on-going financial, health and greenhouse benefits for the community.

## 6. CONSULTATION

### Who are the main affected parties?

74. The main parties affected by the proposed introduction of ADR 81/01 are purchasers of new vehicles as represented by the Australian Automobile Association (AAA), motor vehicle manufacturers and importers as represented by the Federal Chamber of Automotive Industries (FCAI) and motor vehicle retailers as represented by the Motor Trades Association of Australia (MTAA).
75. The Government has made clear for some years its intention to proceed with the expansion of mandatory fuel consumption labelling. Expansion of the label and alignment of the test method with the UN ECE fuel consumption test were discussed in the draft regulation impact statement on fuel consumption labelling released for public comment by the Australian Greenhouse Office in April 1999<sup>11</sup>. At that time, expansion of the label and alignment of the test was considered impractical due to such issues as availability of data, test facilities and test methodologies. It was also thought that requiring emissions and fuel consumption information to be calculated from different tests was not practical when the data for both were available from a single test.
76. The intention to introduce ADR 81/01 has been discussed at meetings of the Transport Emissions Liaison Group (TELG) in 2000 and 2001. TELG is the main consultative group which supports the Motor Vehicle Environment Committee (MVEC). It consists of representatives of government (Commonwealth, State and Territory) transport and environment agencies, key industry groups (including organisations such as the FCAI, Australian Trucking Association and the Australian Institute of Petroleum), motoring associations and environment groups.
77. The public discussion paper *Draft Regulation Impact Statement - Proposed Changes to ADR 81/00 Fuel Consumption Labelling for Light Vehicles* developed by the Australian Greenhouse Office in consultation with DOTARS comprised the main consultative initiative for the proposed changes to ADR 81/00. The Government nominated a preference for Option 2 in the discussion paper.
78. The discussion paper was advertised in the Weekend Australian of 22 December 2001 (See Attachment B). In addition, the paper was circulated for comment to AAA, FCAI, MTAA, MVEC members, TELG members, Transport Agency Chief Executives and all respondents to the original fuel consumption labelling RIS of April 1999. The draft RIS was also posted on the Australian Greenhouse Office's website at <http://www.greenhouse.gov.au/transport/>

**What are the views of those parties?**

79. A total of fifteen submissions were received (see Table 5)

**Table 5: Respondents to the Public Discussion Paper.**

|    | <b>Respondent</b>                                  |
|----|--|
| 1  | Attorney General's Department                      |
| 2  | NZ Land Transport Safety Authority (#1)            |
| 3  | National Transport Secretariat                     |
| 4  | Qld Environmental Protection Agency (#1)           |
| 5  | Australasian Fleet Managers Association            |
| 6  | ACT Department of Urban Services                   |
| 7  | Australian Liquefied Petroleum Gas Association Ltd |
| 8  | NSW Environment Protection Authority               |
| 9  | Australian Automobile Association                  |
| 10 | Federal Chamber of Automotive Industries           |
| 11 | Transport SA - (Environment Strategy)              |
| 12 | Motor Trades Association of Australia              |
| 13 | NZ Land Transport Safety Authority (#2)            |
| 14 | Motor Vehicle Environment Committee                |
| 15 | Qld Environmental Protection Agency (#2)           |

80. Three submissions (Attorney General's Department, and the NZ Land Transport Safety Authority (#1) and (#2)) expressed no opinion on the draft RIS.

81. The Motor Trades Association of Australia stated it was "...not in favour of labelling schemes of the type that is under consideration." MTAA believes such schemes do not take into account "key factors" which affect fuel consumption and that "...without associated regulatory arrangements designed to ensure that vehicles are driven at the maximum possible efficiency, such schemes may have little relationship to actual in-service fuel consumption." However, MTAA supported Option 2 as the least intrusive and least costly option. MTAA strongly opposed Option 3 but supported the provision of CO<sub>2</sub> information via MVEC's proposed *Green Vehicles Guide*<sup>19</sup>.

82. FCAI, ALPGA, Qld EPA (#1) and AFMA supported Option 2. FCAI further requested the earliest possible gazettal of the new ADR. The AGO undertook further consultation with FCAI in relation to acceptance of Option 3. FCAI agreed on 17 April 2002 that industry would support Option 3 with inclusion of CO<sub>2</sub> data on the label from January 2004. FCAI had previously indicated that it "...can accept the inclusion of CO<sub>2</sub> information on the label provided that the size and format of the label is only slightly changed." The AGO continued consultations with FCAI over the size and format of the label and over the preferred commencement date.

<sup>19</sup> MVEC, *Proposal for an Australian "Green Vehicles" Guide*, January 2002. Available at <http://www.dotrs.gov.au/land/Environment/Green-Vehicles-Guide.htm>

83. NTS and Qld EPA (#2) supported Options 2 and 3, with Qld EPA noting that the inclusion of CO<sub>2</sub> information "...would provide valuable information for consumers..."
84. MVEC, AAA, NSW EPA, ACT Department of Urban Services and Transport SA supported Option 3. As noted above, the FCAI has now also indicated its acceptance of Option 3. The AAA, claiming to represent over six million motorists, stated "...there would be a strong case to answer if the CO<sub>2</sub> results were not included on the label."

## 7. CONCLUSION AND RECOMMENDED OPTION

### Summary of the assessment of each option

#### *Option 1 - Status Quo - Mandatory Fuel Consumption Labelling under ADR 81/00*

85. The continuation of mandatory fuel consumption labelling under ADR 81/00 is not considered feasible. Continuation of labelling arrangements under ADR 81/00 would require increased testing, because from 1 January 2003 the same test method would no longer be applicable to both fuel consumption and emissions, as is currently the case. This would result in additional cost to industry without any additional benefit to consumers. Further, continuation of existing labelling arrangements will not address the current lack of easily accessible fuel consumption information for buyers of new vehicles with a GVM greater than 2.7 tonnes and for purchasers of diesel 4WDs and diesel LCVs. Option 1 will not address the current lack of specific information on the amount of CO<sub>2</sub> produced by vehicles less than or equal to 3.5 tonnes GVM.

#### *Option 2 - Replace ADR 81/00 with Mandatory Fuel Consumption Labelling under ADR 81/01*

86. The expected benefits of expanding fuel consumption labelling as proposed in Option 2 include an increase in the purchase of more fuel efficient vehicles, resulting in decreased fuel use, a decrease in CO<sub>2</sub> emissions and noxious vehicle emissions. Further benefits would be experienced by manufacturers and importers, as fuel consumption and emissions tests are harmonised. Costs are mainly associated with the printing and affixing of the label to a wider range of vehicles.

#### *Option 3 - Replace ADR 81/00 with Mandatory Fuel Consumption Labelling and Reporting of Carbon Dioxide Emissions under ADR 81/01*

87. The impact of Option 3 is expected to be similar to Option 2, with the additional benefit of providing consumers with information that clearly links vehicles with greenhouse emissions. This environmental information enables consumers to see both the fuel consumption and CO<sub>2</sub> emissions of any new car and to make comparisons between makes and models before deciding on a new car purchase.

Provision of CO<sub>2</sub> information will also more clearly identify the greenhouse impacts of different fuel types. Costs are mainly associated with the redesign of the existing label to incorporate the CO<sub>2</sub> value and the printing and affixing of the label to a wider range of vehicles. Potential benefits could be reduced if new vehicle purchasers become confused by the additional information on the label.

### **Preferred Option**

88. In the draft Regulation Impact Statement released for public comment in December 2001, the Government nominated a preference for Option 2. Public submissions, notably from AAA and MVEC, strongly supported Option 3. In recognition of this strong support, the Australian Greenhouse Office, in consultation with DOTARS and Environment Australia now recommends the adoption of Option 3 - *Replace ADR 81/00 with Mandatory Fuel Consumption Labelling and Reporting of Carbon Dioxide Emissions under ADR 81/01*.
89. This option addresses the current lack of easily accessible fuel consumption information for buyers of new vehicles with a gross vehicle mass of between 2.7 and 3.5 tonnes and is consistent with Commonwealth Government's objective of harmonising Australian standards with international vehicle emission standards. This option also harmonises fuel consumption testing with the testing for emissions required under ADR 79/00 as from 1 January 2003. In addition, this option requires that labels report CO<sub>2</sub> emissions for all new petrol, LPG, CNG and diesel passenger vehicles, 4WDs and LCVs up to 3.5 tonnes GVM. Inclusion of CO<sub>2</sub> information on the label aims to complement fuel efficiency information in raising consumer awareness of fuel efficient vehicles and their role in helping to reduce greenhouse gas emissions. Additional costs for Option 3 (relative to Option 2) are likely to be minimal.
90. It is acknowledged that had Option 3 been recommended at public consultation stage, responses from key stakeholders may have been different. Some stakeholders may have framed their comments in light of the Government's stated preference for Option 2. Nevertheless, three clear options were put forward for comment. Of the twelve public submissions that nominated a preferred option, seven supported either Option 3 or both Option 2 and 3, demonstrating a preparedness to adopt an alternative position to that put by Government. In addition, following further consultation, FCAI have subsequently indicated its acceptance of Option 3.
91. Option 1 is rejected as it will not address the current lack of CO<sub>2</sub> information or fuel consumption information for vehicles over 2.7 tonnes and will result in a mandatory duplication of fuel consumption tests when ADR 79/00 commences in 2003.
92. Option 2 is rejected following strong support for Option 3 as expressed in submissions in response to the call for public comment on proposed changes to ADR 81/00.

## 8. IMPLEMENTATION AND REVIEW

### How will the preferred option be implemented?

93. As described above, Option 3 would be implemented by replacement of ADR 81/00 with ADR 81/01. Following negotiations with FCAI, the industry peak body, an agreed date of 1 July 2003 has been proposed for commencement.
94. ADR 81/01 will use a different fuel consumption test to that in ADR 81/00 and even though recent testing indicates a good correlation between the two tests some vehicles give different results on the two tests. Thus the transition from labelling under ADR 81/00 to labelling under ADR 81/01 has the potential to confuse purchasers of new vehicles and/or to impose additional costs on industry.
95. The Government seeks to manage the transition to the new labelling requirements with a minimum of confusion and cost, while maintaining the integrity and objectives of the labelling scheme.
96. It is proposed that the transition to ADR 81/01 be managed through a phased introduction of the new label, matched to the 1-year phased introduction of ADR 79/00. Within the consultation phase, it had originally been proposed that the phase in period would be from 1 January 2003 to 1 January 2004. This would mean that all vehicles supplied new to the market would be required to comply with ADR 81/01 by 1 January 2004. As with other ADRs, manufacturers will be able, if they so choose, to certify vehicles to ADR 81/01 as soon as it has been gazetted. However, it will not be mandatory to do so until the relevant phase in date as outlined above.

FCAI on behalf of industry had previously agreed that the ADR 81/01 would be acceptable provided that the inclusion of CO<sub>2</sub> data would only slightly change the size and format of the label. FCAI subsequently determined that as a result of inclusion of additional CO<sub>2</sub> data, and an additional colour on the label, and other wording changes added to the label at a later date, the starting date for ADR 81/01 of 1 January 2003 could not reasonably be met by its members. FCAI then sought a start date of 1 January 2004. AGO and DOTARS held further negotiations with FCAI on the matter of the starting date, finally reaching a compromise agreement of a starting date for ADR 81/01 of 1 July 2003.

The six month slippage in the starting date for ADR 81/01 to 1 July 2003 from the date previously proposed in the draft RIS for public comment will impose no significant additional costs to the business community. Benefits to the community at large from the additional CO<sub>2</sub> information on the label will not be significantly affected from a six month delay in introduction of ADR 81/01.

The AGO/DOTARS position on the outcome of the negotiated agreement was that there was little practical difference in benefits accruing to the community from a six month delay, but that there were positive benefits in terms of achieving solid agreement with FCAI on a compromise date which demonstrated a responsiveness to industry views and suggestions and a cooperative approach that resulted in

positive outcomes for both parties. Industry demonstrated a cooperative and flexible stance in negotiations achieving a desirable relaxation of the originally proposed start date while keeping the favourable prospects of progress towards gazettal of regulations to introduce ADR 81/01 at the earliest possible date.

97. ADR 79/00 will be replaced by ADR 79/01, which will be phased in over the period of 1 January 2005 to 1 January 2007. ADR 79/01 has already been gazetted and implements tighter noxious emissions standards for light vehicles in order to reduce air pollution. As with ADR 79/00, it will apply to all passenger and goods carrying vehicles with a gross vehicle mass less than or equal to 3.5 tonnes. There are some small differences in the test procedures between ADR 79/00 and ADR 79/01, but comparative testing indicates that this is not expected to have a significant impact on fuel consumption values<sup>18</sup>. It will be important to prevent the recurrence of a 'misalignment' between the test methods required under the Australian Design Rules for emissions and fuel consumption labelling when ADR 79/01 comes into effect. Therefore it is proposed that ADR 81/01 be written so that:

- when it first comes into effect, manufacturers will be able to use the test in ADR 79/00 or ADR 79/01 as the basis for calculating the fuel consumption value for the label.
- when ADR 79/00 is no longer applicable, manufacturers will be required to use the test in ADR 79/01 as the basis for calculating the fuel consumption value for the label.

98. Incorporation of CO<sub>2</sub> information on the label will require the Australian Greenhouse Office to disseminate supporting educational material which may include:

- point of sale pamphlets for consumers;
- guide brochures for sales staff;
- information on the internet; and/or
- a media campaign.

**Is the preferred option clear, consistent, comprehensible and accessible to users?**

99. Research commissioned by the Australian Greenhouse Office on the impact of the launch of compulsory fuel consumption labelling in January 2001 indicates that consumers understand the purpose of the label and that the program is well supported. Motor vehicle dealers see the label as helping purchasers of new vehicles make more informed decisions and some saw the label as another selling point.

**What is the impact on business, including small business and how will compliance and paper burden costs be minimised?**

100. An important consideration in the replacement of ADR 81/00 with ADR 81/01 is the one-off and ongoing cost that will be incurred by business and Government. Businesses likely to be affected by the implementation of the ADR 81/01 include vehicle manufacturers, importers and retailers.



101. One-off costs for business are identified primarily to be training of retail and sales staff. Given that sales staff already operate with a fuel consumption label for vehicles up to 2.7 tonnes GVM it is assumed that the additional training would be minimal and therefore a cost has not been estimated. Supporting information such as point of sale pamphlets and showroom posters will be prepared by the Australian Greenhouse Office.
102. A number of ongoing costs will be incurred after the implementation of ADR 81/01. These costs will be incurred by motor vehicle manufacturers and importers. Manufacturers and importers will incur the cost of printing and affixing labels to a wider range of new vehicles. The impact assessment for Option 3 identified that this ongoing cost would be about \$393,500 per year. The additional printing cost of including CO<sub>2</sub> information on all fuel consumption labels is estimated to be in the order of \$16,000 per annum. It is expected that these costs will be passed on to consumers.
103. Introduction of ADR 81/01 will bring about a significant ongoing benefit to manufacturers and importers. The FCAI has indicated that it believes that the number of fuel consumption tests required to comply with ADR 81/01 will be less than those required under ADR 81/00. The potential benefit has not been quantified.
104. Inclusion of the CO<sub>2</sub> emissions value in addition to the fuel consumption value for new vehicles will help raise consumer awareness of the relative greenhouse impact of different fuel types. Impacts on small business and administration are summarised in Table 6.

**Table 6: Impact of preferred option on small business and administration**

|                           | Cost  |  | Benefit  |         |
|---------------------------|---|--|--|---------|
|                           | On going  | One Off  | On going   | One Off |
| Retailer                  |   | <ul style="list-style-type: none"> <li>Training</li> </ul> | <ul style="list-style-type: none"> <li>Additional sales feature</li> </ul>   |         |
| Manufacturer and Importer | <ul style="list-style-type: none"> <li>Printing and affixing additional labels (\$393,500 per year)</li> <li>Additional print cost resulting from inclusion of CO<sub>2</sub> information on all vehicles ≤ 3.5 tonnes GVM (\$16,000 pa)</li> </ul> |  | <ul style="list-style-type: none"> <li>Reduced number of fuel consumption tests required resulting cost saving.</li> </ul> |         |

**How will the effectiveness of the preferred option be assessed?**

105. The Australian Greenhouse Office intends to undertake research in the post-launch phase to determine the effectiveness of the label.

**If the preferred option takes the form of regulation, is there a built-in provision to review or revoke the regulation after it has been in place for a certain length of time?**

106. Australian Design Rules are subject to normal processes of legislative review.

## ABBREVIATIONS AND ACRONYMS

|                 |   |
|-----------------|---|
| AAA             | Australian Automobile Association   |
| AFMA            | Australasian Fleet Managers Association   |
| AGO             | Australian Greenhouse Office  |
| ALPGA           | Australian Liquefied Petroleum Gas Association Ltd  |
| AS              | Australian Standard<br><br><i>AS 2877 - 1986 Methods of Test for Fuel Consumption of Motor Vehicles Designed to Comply with Australian Design Rules 37 and 40</i>   |
| ADR             | Australian Design Rule<br><br><i>ADR 37/01 Emission Control for Light Vehicles</i><br><br><i>ADR 79/00 Emission Control for Light Vehicles</i><br><br><i>ADR 79/01 Emission Control for Light Vehicles</i><br><br><i>ADR 81/00 Fuel Consumption Labelling for Light Vehicles.</i><br><br><i>ADR 81/01 Fuel Consumption Labelling for Light Vehicles</i> |
| BTE             | Bureau of Transport Economics (formerly the BTCE)   |
| BTCE            | Bureau of Transport and Communication Economics   |
| CNG             | Compressed Natural Gas  |
| CO <sub>2</sub> | Carbon dioxide  |
| CO              | Carbon monoxide   |
| DOTARS          | Department of Transport and Regional Services   |
| FCAI            | Federal Chamber of Automotive Industries  |
| 4WD             | Four Wheel Drive  |
| GVM             | Gross vehicle mass - the maximum laden mass of a motor vehicle as specified by the manufacturer.  |
| LCV             | Light Commercial Vehicle  |
| LPG             | Liquefied Petroleum Gas   |
| MTAA            | Motor Trades Association of Australia   |

|                 |  |
|-----------------|--|
| MVEC            | Motor Vehicle Environment Committee  |
| NRMA            | National Roads and Motorists' Association Ltd  |
| NSW EPA         | New South Wales Environment Protection Authority   |
| NTS             | National Transport Secretariat   |
| NO <sub>x</sub> | Oxides of Nitrogen   |
| Qld EPA         | Queensland Environment Protection Agency   |
| RIS             | Regulation Impact Statement  |
| TELG            | Transport Emissions Liaison Group  |
| UN ECE          | United Nations Economic Commission for Europe  |
|                 | <i>UN ECE R 83 Uniform Provisions Concerning The Approval Of Vehicles With Regard To The Emissions Of Pollutants According To Engine Fuel Requirements.</i>  |
|                 | <i>UN ECE R 101 Uniform Provisions Concerning The Approval Of Passenger Cars Equipped With An Internal Combustion Engine With Regard To The Measurement Of The Emission Of Carbon Dioxide And Fuel Consumption And Of Categories M1 And N1 Vehicles Equipped With An Electric Power Train With Regard To The Measurement Of Electric Energy Consumption And Range.</i> |

## Attachment C

### Revised Fuel Consumption Label proposed for inclusion in the ADR 81/01

