

Proposed Fleet Fuel Efficiency Standard

The South Australian Government recognises the importance of improving fuel efficiency and reducing greenhouse gas emissions from the light motor vehicle fleet. This is critical for both national energy productivity and to lessen impacts to global warming. Reducing net CO₂ emissions from light motor vehicle use is critical to the achievement of both National and State Government mandated emission targets.

Fleet Fuel Efficiency Standards have proven a very effective means of driving efficiency gains in major international markets and Australia currently suffers in the absence of such a Standard with our national fleet being one of the most energy inefficient amongst OECD nations.

A new Standard to drive fuel efficiency improvements for new vehicles in the Australian marketplace will provide substantial financial benefits to consumers as they will face lower fuel costs and lower total costs of operating a vehicle over its lifetime, whilst maintaining current levels of personal mobility. Few other abatement measures offer such high CO₂ emissions reductions whilst providing such a high net positive financial return.

From the options presented in the Regulatory Impact Statement, the South Australian Government recommends that Option A be adopted (105 g CO₂/km). This clearly provides the highest net benefits in financial terms of all the options considered.

The Standard should commence in 2020, and at a minimum, be equivalent to the US standard by 2025 (allowing for any phase in of the new scheme). We believe that this option balances a substantial improvement in motor vehicle fuel, whilst maintaining the broad characteristics of the fleet (vehicle size and performance) that are valued and needed by Australians.

The Government also recommends that the new Fleet Fuel Efficiency Standard be used to further encourage the uptake of electric vehicles (eg by Super Credits). While current adoption levels of electric vehicles are low, the technology offer potential for substantial future emission reductions from the 'business as usual case' in South Australia (with our low emissions intensive grid) and nationally as the grid is progressively decarbonised. Super credits would provide a strong incentive for automobile manufacturers to bring these vehicles to Australia in the shorter term and thereby bridge a major gap in our market place.

General Comments:

- The Regulatory Impact Statement offered 3 Options for a new Fleet Fuel Efficiency Standard (A, B, C). From the cost benefit analysis undertaken, the strictest implementation of Option A (105 g CO₂/km) provides a much higher NPV and lower cost of abatement than does Option B (119 g CO₂/km), which itself is much better than Option C (135 g/CO₂/km). Hence it seems reasonable to ask why an even stricter implementation (eg Option D mirroring the 2025 EU requirements) was not also considered.
- Presumably this is because the required changes to the Australian fleet (towards much smaller vehicles) and to established consumer buying habits that would be needed to meet the 2025 European Standard were considered too severe to either be practicable or politically acceptable. However it would have benefited the analysis to have modelled this Option and included these qualifications as it appears that the likely optimum economic outcome has not even been considered.

Responses to Questions:

1. *What parameter (CO₂ emissions or fuel consumption) should be used for an Australian fuel efficiency standard and why? (pg 43)*

It is recommended that Australia adopt a new Fleet Fuel Efficiency Standard for light vehicles based on CO₂ emissions. This is favoured because it treats different fuel types equally in regard to their greenhouse gas emissions impact.

However, as this new Standard would have the potential to further incentivise both diesel and direct injection petrol engine vehicles, both of which pose higher toxic emissions risks, it is recommended that the new Fleet Fuel Efficiency Standard be combined with further tightening of noxious emissions standards as would be achieved by adoption and full implementation of the *Euro 6* Standard.

2. *How should a vehicle's efficiency for the purposes of an Australian fuel efficiency standard be assessed and why? (pg 44)*

The New European Drive Cycle dynamometer test as currently used for determining emissions under ADR 79 and fuel efficiency under ADR 81 is now much discredited. Studies such as *Mind the Gap! Why official car fuel economy figures don't match up to reality*¹ have shown that the gap between the official fuel efficiency and CO₂ emissions figures and the real world measurements of large corporate fleets have diverged markedly over the past 15 or so years. While the test figures have decreased substantially, real world estimates have fallen much less so and suggest that much of the claimed CO₂ emission reduction from fleet renewal over this time has not been achieved.

With the movement to the more rigorous World harmonised Light vehicle Test Procedure (WLTP) dynamometer test under full *Euro 6* (with the same or equivalent test to be used in other jurisdictions), it would be inappropriate and misleading to Australia consumers to continue with testing based on the old NEDC procedure. It may also entail additional costs on international automobile manufacturers in having to test vehicles by the old NEDC dyno test to achieve Australian compliance (or otherwise apply a conversion factor to the WLTP result to estimate the lower figures associated with NEDC testing).

Future Real World Driving experience testing, which may be undertaken on-road in Australia by organisations such as the AAA, will also be better compared to the WLTP test than the old NEDC test.

On the assumption that WLTP testing for ADR compliance will not be conducted in Australia to local conditions and using local fuels, it is recommended that the AAA or other organisations be adequately funded to conduct an RDE program for both fuel efficiency/CO₂ emissions and toxic emissions in Australia. This would be the only check that Australian market vehicles are broadly compliant with ADR requirements (as per the NEDC/WLTP tests) and do not contain cheat devices (eg VW EA189 diesel engine).

Given that conversion factors between the NEDC and WLTP tests are now in use, it is suggested that future correspondence from DIRD show the Targets for a future Australian Fleet Fuel Efficiency Standard as it would be under the NEDC test and WLTP test.

¹ Mind the Gap! Why official car fuel economy figures don't match up to reality, Transport and Environment, March 2013).
https://www.transportenvironment.org/sites/te/files/publications/Real%20World%20Fuel%20Consumption%20v15_final.pdf

3. *How should a sales weighted average target be applied in Australia and why? (pg 47)*

An attribute based standard (that varies by a vehicle parameter such as size or weight) is recommended over a flat standard as this is more likely to incentivise manufacturers to significantly improve the performance of existing vehicles rather than to simply downsize the range of vehicles they offer in the Australian market with a likely loss of vehicle diversity and of consumer utility.

A limit value curve as shown in the Regulatory Impact Statement for the EU is considered appropriate for Australia.

4. *If an attribute based standard is adopted, which attribute should be adopted in Australia and why? (pg 49)*

An attribute based standard based on vehicle size or footprint (as per the USA method) is recommended. This is considered to offer far greater incentive for manufacturers to improving vehicle efficiency by weight reduction, thus favouring larger but light vehicles that retain consumer utility and crash safety while delivering improved fuel efficiency/CO2 emissions reductions.

In contrast a weight based attribute may discourage manufacturers from fully seeking efficiency gains from weight reduction, by encouraging vehicle downsizing without innovation a simple means to meet the Standard.

5. *How should a fuel efficiency standard be applied to each light vehicle category and why? (pg 57)*

It is recommended that there be no segmentation between light vehicles types for the purposes of the Fleet Fuel Efficiency Standard.

Most light commercial vehicle manufacturers also sell passenger vehicles, so they have the capacity to comply with a single Standard by altering their vehicle mix. Setting separate standards for light commercial and passenger vehicles is more complex, raises the risk of gaming behaviours by importers and could encourage migration toward the higher emission class of light commercial vehicles (as appears to have happened in the US where it could be argued that the current fashion for 'SUVs & Pick Ups' has been driven by the emissions exemptions granted to these vehicles).

Manufacturers and their customers are quick to exploit any loopholes, as price is a very important part of the buying decision. A high proportion of light commercial vehicles are already sold for purely private passenger use (and many passenger vehicles are purchased by corporate fleets) so that these vehicles are increasingly required to meet the same occupant protection and braking requirements.

For manufacturers with fleets comprising predominantly large commercial light vehicles such as vans, small trucks and pickups under 3.5 tonnes, with no opportunity to meet a fleet weighted average target of 105 g CO₂/km by 2025, special provisions may be needed to ensure that they are not penalised or disadvantaged provided that their own fleet falls on or below the attribute line (eg footprint).

6. *If SUVs are subject to a different target to passenger cars, how should SUVs be defined, and why? (pg 57)*

We recommend that SUVs not be separately defined from passenger cars.

It can be noted that the ADR category MC (Off-Road Passenger Vehicles) is somewhat aligned with the SUV concept. However, MC vehicles are currently subject to the same

emissions standards and fuel consumption labelling requirements as MA vehicles (passenger cars).

Should a separate category for Light Commercial Vehicles be established under the Standard (against our recommendation), then few if any SUV vehicles (meaning 4WD/AWD station wagons with elevated ground clearance) should be classified as LCVs. Otherwise, manufacturers will likely game the rules to see their SUVs classified as LCVs to benefit from lower requirements and/or cost savings.

7. *How should targets for a fuel efficiency standard be phased in and why? (pg 58)*

Given that similar or more stringent fleet fuel efficiency standards are already in place (or are about to be adopted) in the EU, USA, Japan, S. Korea etc, then the range of vehicles required to achieve an equivalent standard in Australia already exists and in theory can be directly imported here to short timeframes.

However it is recognised that (i) many Australian market cars are imported from Thailand (where they may be prepared to Euro 5 emission standards and/or the high sulfur fuel specifications common to our region), and hence may not yet have the latest EU market fuel efficiency and emission reduction engine technologies; and (ii) that the required downsizing in vehicle size and/or performance to meet a challenging Standard may prove unacceptable to Australian consumers if implemented too quickly. Hence both auto manufacturers and consumers may need time to adapt.

Australia could also consider implementing a challenging Standard for 2020, with further annual tightening of the Standard on a yearly basis to 2025, but where the penalties for failing to meet the required Fleet targets start low in 2020 but become punitive by 2025.

Hence we recommend that the Government put a Standard in place by 2020 that achieves the majority of the intended benefits, but which allows a transition period for both industries and consumers to adapt,

8 & 9 *If annual targets are adopted, what targets should apply in each year for each segment and why? (pg 58)*

If a percentage phase in is adopted, what percentage should apply in each year and each segment, and why? (pg 58)

It is recommended that Australia adopt a strong Fleet Fuel Efficiency Standard as would be achieved under Option A, which will see Australia's new vehicle fleet match the performance of the USA new vehicle fleet by 2025 (while still lagging EU Fleet performance at that time).

To achieve this, it is recommended that Australia adopt the strongest practical target for 2020 and apply annual performance improvements through to 2025 to then match the US target/standard.

It is recognised that Australia may need to set a higher (meaning easier) initial target (g CO₂/km) for 2020 reflecting our current higher emissions base with many new Australian-market vehicles still lagging in efficiency technologies, but this can and should be fully overcome by 2025 as all Australian market vehicles adopt the latest technologies. Hence the annual rate of improvement from 2020-25 may need to be high.

10. *What flexibility arrangements should be allowed under an Australian fuel efficiency standard and why? (pg 58)*

Flexible arrangements that assist manufacturers to cost-effectively comply with the Standard while still achieving the intended emissions reductions and energy efficiency gains over time are supported.

11. *What, if any, credits should an Australian fuel efficiency standard adopt to further encourage the supply of more efficient vehicles, and why? (pg 65)*

It is recommended that the Australian Government take immediate actions to encourage the entry and to improve the affordability of Electric and other Zero Emission Vehicles in the Australian marketplace.

Electric vehicles offer the potential for substantial reductions in greenhouse emissions performance (particularly over time as the grid decarbonises) as well as providing substantial public health benefits by eliminating air toxic emissions within urban centres.

The South Australian Government has previously argued for reform of Federal taxation policies (eg LCT, FBT and sales taxes) that impact disproportionately on electric vehicles due to their high initial purchase price, while other policies continue to subsidise high emission conventional vehicles (eg by allowing for tax deductibility of liquid fuel costs).

The adoption of a Super Credit Scheme similar the EU for a limited period of time (eg 2020-25) would provide a clear signal to international automobile manufacturers that the Government seeks to explore zero emission vehicle opportunities. Australian consumers are currently starved of electric vehicle choices and such a Credits Scheme should incentivise manufacturers to bring some vehicles to Australia at an earlier time than would otherwise be the case, with the benefit of no direct cost to Government.

While we recognise that electric vehicles will only become mainstream vehicles when they achieve true cost advantages over conventional vehicles (predicted to occur in the mid to late 2020s), the earlier supply of vehicles and their purchase by early adopters will help with preparations for coming change and for assessing impacts on the grid.

Should Super Credits prove to be too administratively complex or burdensome under the Standard, then it is recommended that the Australian Government achieve a similar outcome through direct subsidies.

12. *Which entities should be required to comply with a fuel efficiency standard, and why? (pg 66)*

It is recommended that the new Fleet Fuel Efficiency Standard align to the entities that are responsible for certification under the *Motor Vehicle Standards Act 1989*.

Consideration should be given as to whether automotive groups (eg VW/Skoda/Audi/Porsche) should be allowed to (or encouraged to) pool their fleets for the purposes of compliance with the Standard.

13. *What concessional arrangements should be offered to low volume suppliers under an Australian fuel efficiency standard and why? (pg 67)*

Currently, low volume imports are required to comply with motor vehicle standards applicable in their country of origin. Emissions controls and related systems must be intact and consumable components, like catalytic converters, must be renewed. It is suggested that where practicable similar considerations should apply to fuel efficiency measures. This would also aim to discourage the import of vehicles with markedly different specifications (entailing much higher CO₂ emissions) for Australia.

Note that some major European auto manufacturers such as Skoda (within the VW Group) have a full range of vehicles able to fully satisfy the very demanding EU Fleet

Fuel Efficiency Standard, but only sell about 5,000 vehicles per annum in Australia. Peugeot and Citroen sell under 2,000 each. Care should be taken not to unduly favour these entities under the proposed Standard by enabling them to import and sell relatively high emitting vehicles more cheaply/profitably than manufacturers such as VW or Mazda that must fully comply with the proposed Standard as high volume retailers.

Significant concessions to the proposed Australian Standard would be best reserved for vehicles produced in low numbers internationally (eg 5,000 vehicles pa worldwide).

The concessional arrangements for low volume suppliers proposed in Table A5 appear adequate, except that we suggest a cap of 5,000 or 10,000 rather than 30,000 vehicles to ensure the proportion of vehicles covered is >90% and ideally >95% by 2025.

The possibility of future low volume motor vehicle manufacturing in Australian should not be discounted. The proposed Standard should not provide a significant barrier to new Australian start-ups.

14. *What penalties should be applied to entities that fail to comply with a fuel efficiency standard and why?*

It is recommended that penalties be set at a level that the cost of paying the penalty is significantly more than the cost of compliance for all major manufacturers and for all mass market vehicles, so that the Standard actively drives the improvements in fuel efficiency and emissions performance required.

However, it is recommended that penalties not be so high as to completely preclude relatively low volume specialist vehicles, where the individual costs of compliance may be prohibitive, and/or where enthusiast/specialist buyers are willing to pay a fair premium for the additional emissions to be emitted by their vehicle during its life.