This submission addresses the questions posed in the 2011 Discussion Paper for light vehicle CO2 emission standards for Australia.

The ultimate aim of CO2 emission standards is to reduce CO2 emissions. The Discussion Paper proposes a scheme based on defining targets for the average emissions per kilometre of new vehicles sold in Australia. However, this is only one of a number of policy instruments that could be implemented in order to reduce CO2 emissions from vehicles. Indeed, the Australian Government has a current policy framework aimed at reducing greenhouse emissions from all sectors. The cornerstone of this policy framework is the carbon tax that will commence in 2012, and which will eventually be transformed into a carbon trading scheme. This carbon trading scheme must eventually include transport fuels if Australia is to achieve deep cuts in transport emissions, which depend on how vehicles are used as well as vehicle emissions per kilometre.

It is essential that the Australian Government introduce a range of complimentary policies that work together to reduce Australia’s greenhouse gas emissions. Currently there are a number of policy anomalies that actually lead to an increase in CO2 emissions from transport; these have been identified in reviews such as the Henry Tax Review. These other policy initiatives are beyond the scope of the Discussion Paper, but they need to be considered within the context of the proposed CO2 standard since they have the potential to weaken the effectiveness of the policy.

Another issue that must be considered is that Australia is a small player in the world vehicle market. An Australian CO2 emissions policy could have significant effects in Australia by moving our mix of vehicles towards best-in-class performance. A large proportion of the vehicles sold in Australia are fully imported from countries that already implement strict CO2 standards. Because of this, Australia will, to some extent, get a ‘free ride’ in reducing the emissions from its vehicle fleet. It is important that Australia implement CO2 targets at similar levels to those in the rest of the world, so that we do not become a dumping ground for vehicles with CO2 emissions that are unacceptable in other countries.

The policy of setting CO2 emission targets for the Australian vehicle fleet has the potential to significantly reduce emissions from vehicles, but it needs to be implemented and administered in a strategic manner. If this does not occur, it has the potential to limit the opportunities for Australian vehicle buyers to reduce their environmental impact.
Q1 Do you support the setting of staged short and medium term targets?

Targets should be staged beyond 2015, to clearly indicate both the need to continue reducing CO₂ emissions beyond 2015 and the magnitude of the reductions required.

Q2 If yes, do you consider 2020 is the logical date for a firm second stage target?

2020 is a reasonable date for the second target. An additional target for 2025 should be announced in 2015. Targets should be announced at least five years in advance, to allow the global automotive industry time to respond.

Q3 Do you consider it is appropriate to set a target beyond 2020 at this stage?

Yes. The automotive industry needs clear indications that the reductions must continue beyond 2020.

The 2008 Garnaut Report indicates that Australia’s per-capita CO₂ emissions need to reduce by 95% by 2050 in order to stabilise atmospheric CO₂ at 450 parts per million. This should be reflected in a long-term CO₂ target for vehicles, and in intermediate targets.

Q4 Do you consider 2010 is the appropriate base year for determining the targets?

2010 is a reasonable base year, provided that it did not have abnormally high or abnormally low sales-weighted emissions. In the long term, the base year does not matter.

Q5 What rate of CO₂ emissions reduction do you consider is achievable by 2015 and 2020 in Australia?

If we were to aim for a 95% reduction in new vehicle emissions by 2050, at a constant rate, then the necessary reduction rate is 7.2%...
per year. This would put the 2020 reduction target at just over 50%. To achieve this, we would need to change our mix of vehicles to be similar to the European mix. Large initial cuts could be achieved using current technologies by changing the mix of new vehicles towards currently available best-in-class.

Q6 What do you think is a reasonable CO\textsubscript{2} target for the Australian new light vehicle fleet in 2015 and 2020?

With a reduction rate of 7.2%, the 2015 target would be 147 gCO\textsubscript{2}/km and the 2020 target would be 100 gCO\textsubscript{2}/km. The technology exists now to achieve 147 gCO\textsubscript{2}/km, but would require a significant move towards best-in-class vehicles (and their fuels).

Q7 Are there any impediments to Australia achieving the more ambitious rates of reduction embodied in Scenarios 5 and 6 above?

The vehicles required to make large initial cuts in average CO\textsubscript{2} emissions are already available. There is no need to start with a low reduction rate, as proposed in Scenarios 5 and 6. As the fleet changes, it will be increasingly more difficult to reduce emissions, and so an increasing rate of reductions may not be achievable.

About half of all new vehicles are sold to fleets. Taxation concessions that externalise some of the costs of buying and operating vehicles may be skewing the mix of new vehicles towards more prestigious, higher-emission vehicles.

The cars built in Australia (by global companies) are large cars with high emissions, and are sold primarily to fleets. Government support of the local industry may be impeding the shift to more efficient vehicles.

Q8 Do stakeholders have any information on costs and benefits of standards which would assist the Department of Infrastructure and Transport in the preparation of the cost benefit analysis for the implementation RIS?

We do not have specific cost or benefit data.

Q9 Should Australia set a single set of CO\textsubscript{2} targets for all light vehicles, or is there merit in establishing separate targets for passenger vehicles (cars and SUVs) and for LCVs (utes and vans)?

There should be a single target for all light vehicles. This will make the system easier to understand and administer.
Q10 Do you support the idea of bonus credits for new technology vehicles (such as EVs), flex fuel vehicles and other technologies, or should the CO\textsubscript{2} standard be purely performance based, treating all vehicles on the same basis (using the CO\textsubscript{2} emissions result on the standard ADR test)?

Bonus credits take a meaningful measure—grams of CO\textsubscript{2} emitted per kilometre on a standard drive cycle—and make it meaningless. The fuel consumption label on a vehicle should report the drive-cycle emissions of that vehicle. Applying bonus credits beyond this will mean that even if the bonus-modified target is met, the actual average CO\textsubscript{2} emissions will be higher than the target.

Ideally, the measure of CO\textsubscript{2} emissions should be well-to-wheel rather than the current tank-to-wheel. Using tank-to-wheel figures will already give an advantage to vehicles that have low tank-to-wheel emissions, regardless of their well-to-tank emissions.

Incentives for new technologies that will give a significant change in emissions are desirable, but should be separate to the CO\textsubscript{2} per kilometre target.

Q11 If you support credits, what vehicle types do you consider qualify for a credit and why?

We do not support credits. However, given the magnitude of CO\textsubscript{2} emissions reductions required in the long term, and the long life of vehicles, any incentives should be given only to vehicles which would meet the emissions target for ten years into the future.

Q12 Do you support an attribute based standard?

We are ultimately interested in reducing the CO\textsubscript{2} emissions associated with moving people and goods. For passenger cars, the emissions associated with a vehicle will depend on the distance travelled and on the number of people carried. To make a case for attribute-based standards, you would need to show a significant correlation between vehicle attributes and the way that a vehicle will be used. If an allowance is made, the allowance should be based on the expected reduction in emissions per passenger-kilometre.

There are similar anomalies in the star-rating systems for appliances and houses, which are based on volume and floor area respectively. For example, you can buy a 1.5-star bar fridge that uses 220 kWh/year, or a 3-star 430-litre fridge that uses 406 kWh/year—more stars does not mean less energy.

Q13 If so, do you have a preference for mass or footprint?

We do not support attribute-based standards. But if they are to be used, footprint is likely to have a more favourable correlation with emissions/passenger-km than mass.

There is an additional problem with predicting emissions from
the ADR tests; the dynamometer test does not properly take into account the aerodynamic drag of vehicles, and so emissions are underestimated for cars with poor aerodynamics. This could give an unwarranted advantage to larger vehicles.

**Q14** If you do not favour an attribute based standard, what is your preferred approach and why?

A standard based on well-to-wheel emissions would be more realistic than a standard based on tank-to-wheel emissions. If this is not feasible, the standard should be based on the measured tank-to-wheel emissions. However, a measurement based on tank-to-wheel emissions will advantage electric vehicles, and will disadvantage biofuels.

**Q16** Do you agree that the current VFACTS database (supplemented and audited as necessary) is suitable as the primary data source for assessing and reporting compliance with the standards?

The alternative to VFACTS is new vehicle registrations. Which is more accurate?

**Q17** Do you also agree that data collected for the purposes of the standard should be made publicly available on an annual basis?

Yes, to give transparency to the system.

**Q18** Do you agree that the Motor Vehicle Standards Act is the most appropriate primary legislation under which to write appropriate CO₂ regulations?

We do not have an opinion on this.

**Q19** If not, what alternative legal framework would you propose?

We do not have an opinion on this.

**Q20** Do manufacturers, particularly importers, have any views regarding the identification of responsible entities under the standards?

We do not have an opinion on this.

**Q21** Do you consider there is merit in allowing manufacturers to pool, or is it an approach that manufactures are unlikely to pursue?

Pooling can happen outside of the scheme, and should not require administration by the scheme.
Q22 Do you think there is sufficient merit to warrant the inclusion of banking and trading systems as a feature of Australia’s CO₂ standards?

Banking and trading should not be part of the scheme, but may occur outside of the scheme. When a CO₂ cap-and-trade scheme is implemented, it should include transport fuels.

Q23 Do you agree such systems are only possible where annual targets are set?

We do not have an opinion on this.

Q24 Do you agree that financial penalties are the most effective way to address non-compliance?

We do not have an opinion on this.

Q25 If not, what alternative would you suggest?

We do not have an opinion on this.