Submission to ‘Light vehicle CO2 emissions standards for Australia - Key Issues Discussion Paper’

Sustainable Transport Coalition of Western Australia (STCWA),

Sept 2011

This submission is in three parts:

1. Transport energy efficiency - measures
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1. Transport energy efficiency - measures

STCWA supports the introduction of light vehicle CO2 emissions standards in Australia, but believes that they do not go anywhere near far enough. They should not on any account be taken as sufficient to achieve the dual imperatives of 80% CO2 emissions reduction necessary to stabilize climate and securing the nation against oil vulnerability.

A recent European Environment Agency report on transport and the environment indicated that EU fuel efficiency improvements did not result in a reduction in overall fuel demand. Although new cars in 2010 were approximately a fifth more efficient than in 2000, between 1990 and 2009 demand for transport grew by approximately one third, leading to a 27% increase in greenhouse gases (GHGs) from transport in the same period. [http://www.eea.europa.eu/pressroom/newsreleases/european-transport-sector-must-be](http://www.eea.europa.eu/pressroom/newsreleases/european-transport-sector-must-be)

This illustrates the futility of concentrating on improving new vehicle ‘fossil fuel efficiency’ (i.e. CO2 emissions) without demand-side measures, such as pricing and behavioural changes. It is vehicle use that is the main problem, not just vehicle technology and ownership. Vehicle fuel economy standards are a very weak and slow-acting measure and need to be supplemented by a range of other measures.

Emphasis on vehicle emission standards or fuel economy standards alone is likely to be either ineffectual, or worse, will give the impression that something is being done and discourage policy debate and action towards reducing our oil vulnerability and transport’s high levels of CO2 emissions.
**Higher fuel taxes**

The major and most effective measure that Federal Government should take is to legislate for staged increases in fuel taxes to European levels and beyond (following Margaret Thatcher’s fuel tax escalator example (5)).

Contrary to the claims of motoring organizations such as RACWA, STCWA believes that motor vehicle taxes, in particular fuel taxes are far too low and do not adequately reflect the real cost of motoring to the community. We acknowledge that these taxes may exceed the amount spent on roads, but there are many other externalized costs such as congestion, death and disability, pollution (CO2 and noxious emissions) and noise that are not covered by the current level excise levied on fuel.

(Note: STCWA agrees with RACWA that more should be spent on improving the route coverage and service frequency of public transport, in particular to areas that are currently poorly serviced. We note that suburban rail services in WA are already very good but are in need of expansion and more rolling stock to cater for overcrowding.)

The higher cost of fuel in Europe is a major factor contributing to their more efficient light vehicle fleet and lower per person vehicle kilometres travelled. The ‘wide brown land’ argument for the ‘necessity’ of traveling high kilometres in large vehicles is essentially a myth, as over 80% of road km travelled in Australia are in cities, occupancy is only 1.3 per vehicle and small fuel efficient vehicles are far better suited to this purpose.

**Tradeable Gasoline Rights**

Tradeable gasoline rights are a system of allocating fuel to citizens and allowing these rights to be traded. It is a flexible system of fuel rationing, which STCWA believes should be put in place nationally in readiness for fuel shortages. ‘Smart card’ technology like that used for ticketing by Trans Perth, would enable this.

President Reagan’s chief economic advisor, Harvard's Prof. Martin Feldstein wrote in the Wall Street Journal (1), that he believed:

“In short, a system of tradeable gasoline rights (TGRs) would be better than either higher taxes or tougher new car regulations. That a majority of households could benefit from the TGR system while all households would have an increased incentive to economize on gasoline is both an economic and a political advantage. It would be an efficient way to reduce gasoline that Congress could actually pass.”

**Other measures**

There are many there other measures supported by STCWA that are necessary for an energy efficient transport system into the future, for example:

- Increased provision of public transport services
- Increased provision of bicycle paths, lanes and facilities
- Surcharges on vehicles falling short of the standards and banning sale of grossly inefficient vehicles
- Provision of small vehicle parking bays
• Charging points for electric vehicles in car parks
• Congestion pricing in some urban areas
• Government support for Travel Smart and car polling initiatives

2. STCWA’s general responses to the Discussion Paper

STCWA is very supportive of the introduction of vehicle efficiency standards as one of many much-needed measures. We acknowledge that the Key Issues Discussion Paper contains much useful information and is a good start to the process. However we believe the scope of the Paper should be broadened to include:

• **Mention of the impact of ‘peak oil’ on fuel prices and supply.** The Issues Paper is short sighted in its failure to mention the escalating price of oil, possible future oil shortages, or indeed oil, at all. Many authoritative bodies for example the International Monetary Fund, Macquarie Bank, Lloyds of London, the US Defence Department and Sir Richard Branson have all warned about oil shortages in the near term. BITRE’s report 117 estimates that global oil supplies will start to decline in 2017 (7). This is roughly in line, but somewhat later, than many other estimates. Weighted average of estimates of “Peak Oil”, suggest that 2014 (+/- 5 years) is the time when global oil supplies will start their inevitable decline and petroleum fuels will become significantly more expensive. Already 80% of the fuel powering Australia’s transport is imported, either directly, or refined in Australia from imported fuel. Australia’s oil vulnerability is particularly high and to avoid raising it as a central issue for vehicle efficiency standards is incomprehensible.

• **Demand side incentives for purchasing low emissions vehicles.** The regulations should impose surcharges on the purchase of vehicles exceeding standards and rebates for those models emitting less than the standard. This could be revenue neutral thus being a cost effective way of reducing emissions from the light vehicle fleet.

• **A category for motorcycles.** Many models currently emit as much CO2 as small cars and are very inefficient for their weight.

• **Limits to the power: weight ratio of vehicles.** STCWA suggests that power to weight ratios of new on-road passenger vehicles be limited to a maximum 70 kW per tonne unloaded vehicle weight. Over-powering of vehicles is a major cause of fleet inefficiency as fuel consumption rises exponentially under rapid acceleration.

STCWA further suggests the following guiding principles:

1. **In general, STCWA believes the regulations should be tailored to encourage the purchase of lighter, lower powered vehicles.** This is in light of the very low occupancy rate of passenger vehicles (<1.3 per car), and the current gross over-sizing and over-powering of some vehicle categories (for example many SUV’s 6 and 8 cylinder sedans / wagons, including those made in Australia).

Many common 6, 8 and sports 4 cylinder turbo vehicles are, in our view over-powered. These vehicles are more likely to exceed speed limits or be used by ‘hoons’, thereby having a negative effect on road safety.

For this reason, allowing higher emissions for heavier vehicles or those with larger engines is counter-productive as it encourages continued high, inappropriate usage of these vehicle classes. Reducing weight of vehicles should be encouraged; it is an essential measure to
reduce fuel consumption and probably the most cost effective. For example many ‘low tech’ light 4 seater vehicles priced under $16,000 achieve acceptably low emissions, with potential for even lower emissions if expensive technology is added (although this may be unaffordable for some).

2. **Low cost existing technologies (under $500), can be adopted immediately** (e.g. engine stop-start) and more stringent short term targets should be adopted to reflect this.

3. **For passenger vehicles CO2 emission standards should be based on the number of seats rather than weight or footprint.** Those vehicles with seats to carry more passengers should be allowed a higher emission standard. Fuel consumption and emissions currently carry widely for vehicles of the same carrying capacity. For example 5 seater vehicles - Toyota Corolla (7.8L/100 km) can do the same job in terms of moving people as a 5 seat Falcon sedan (11 L/ 100 km) or 5 seat SUV (14 l/ 100 km). Widespread use of the latter type of vehicle when the former would more than suffice is a major cause of fleet inefficiency. A 6 cylinder 5 seater sedan weighing 1.7 tonnes should be subject to the same emissions standard as a 5 seater 4 cylinder hatch-back weighing 1.2 tonnes. This would act as a disincentive for the use of heavy overpowered vehicle options.

Electric and hybrid vehicles, which typically weigh more per seat but achieve low emissions, would not be disadvantaged by this system.

Owners of heavy, high powered vehicles often claim they need them for towing or long trips, or safety when in fact they are rarely used for towing and modern light vehicles are equally comfortable and safe (in some cases more so) than heavy vehicles. The use of commercial or ‘people mover’ vehicles, with high torque diesel engines for these purposes should be encouraged over SUV’s or high powered sedans.

4. **Commercial vehicles need to be treated differently, with emission standards based on load carrying capacity.** This would discourage the current common practice of producing heavy, fuel inefficient SUV- type ‘commercial’ vehicles that are rarely if ever used to carry heavy loads and are most often (very inefficiently) used for passenger commuting.

**Errors or ambiguities in the Discussion Paper**

Tables 2 and 3 contradict each other; Table 2 should deleted as Table 3 appears to give the most accurate and useful information.

**3. STCWA’s Responses to the Discussion Paper questions**

- **Q1** Do you support the setting of staged short and medium term targets? **Yes**
- **Q2** If yes, do you consider 2020 is the logical date for a firm second stage target? **Yes**
- **Q3** Do you consider it is appropriate to set a target beyond 2020 at this stage? stage; a 2020 target should be set in 2015 **Not at this**
- **Q4** Do you consider 2010 is the appropriate base year for determining the targets? **Yes**
Q5 What rate of CO₂ emissions reduction do you consider is achievable by 2015 and 2020 in Australia?

At least 4% annual reduction

Q6 What do you think is a reasonable CO₂ target for the Australian new light vehicle fleet in 2015 and 2020?

Better than the highest standard cited in the Paper (level 6, 183/141)

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

The only impediment is political, so it is very important that the standards are well ‘sold’ to the public, e.g. through ‘Living Smart’ programs, TV commercials and well publicised web pages. Europe and Japan have almost achieved the high standard already and we could do likewise by changing the fleet mix and limiting the sale of inefficient vehicles, the worst of which should be banned from sale. Little if any new technology is needed to achieve this.

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 CO₂ standard be purely performance based, treating all vehicles on the same basis (using the CO₂ emissions result on the standard ADR test)?

Yes.

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

Bonus credits should initially be given for electric vehicles. It is an emerging technology that should be encouraged. It is the most practical and cost effective technology capable of achieving near zero emissions (when all electricity is from renewable sources).

Vehicles that can run on alcohol fuels may also run on petroleum fuel and may have little or no potential to reduce CO₂ emissions. Bio-alcohol fuels can have negative environmental impacts such as displacing land used for food crops thus increasing food prices. Such technologies should not be encouraged and should not be eligible for credits.

Q12 Do you support an attribute based standard?

Yes

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

No. We believe that neither of these should be used as both encourage the use of vehicles than are far larger, more powerful and fuel wasting than is necessary for the purpose.

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

Though we do support an attribute standard, it is neither mass nor footprint. The only attribute criteria should be number of seats and commercial vs. passenger. There should definitely be no separate categories for sports vehicles as this would encourage continuing higher high emissions from a class of vehicle that has been intrinsically fuel inefficient.

Q15 Do you consider there are any other data elements which might also be required for the standards to be effective and enforceable?

License fees should be scaled proportionally with number of seats or carrying capacity (in the case of commercial vehicles). This would act to discourage people from purchasing large vehicle unless they have an economic need to do so.

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?

Not in its current form. The database will need to be expanded to include more fuel efficient models available overseas. Also the fuel consumption standard test should be changed to heavy acceleration conditions more reflective of fuel wasting driving styles so as to reflect ‘potential for inefficiency’.
Q17 Do you also agree that data collected for the purposes of the standard should be made publicly available on an annual basis?  Yes

Q18 Do you agree that the Motor Vehicle Standards Act is the most appropriate primary legislation under which to write appropriate CO2 regulations? The focus of this act is on vehicle safety. CO2 regulations should only be included in a separate section with equal weight and force to safety provisions.

Q19 If not, what alternative legal framework would you propose? Would prefer a new act and regulations

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

Q21 Do you consider there is merit in allowing manufacturers to pool, or is it an approach that manufacturers are unlikely to pursue? It would be counterproductive to allow ‘pooling’, as the management of individual vehicle companies needs to be given full incentive to make vehicle fuel efficiency a KPI (key production indicator). Pooling may enable some firms to avoid pursuing maximum fuel efficiency.

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? Yes to banking but no to trading. Banking would encourage firms to realize the earliest opportunities to exceed emissions standards. Trading would enable some firms to avoid doing the fuel efficiency work on their own models.

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

Q24 Do you agree that financial penalties are the most effective way to address non-compliance? No.

Q25 If not, what alternative would you suggest? Financial penalties are one effective measure but the Act should also empower Government to ban sale of non-complying vehicles.

References: