Ivan Iankov
Research Assistant and PhD student
University of South Australia
Barbara Hardy Institute

This is my personal comment regarding proposed light vehicles CO2 emission standards for Australia. I am part time PhD student from Barbara Hardy Institute at University of South Australia.

In many cases when national average CO2 emissions rates are discussed, the reduction is split into two major components: reduction due to improved vehicle technology and reduction due to market shift towards small vehicles, which are more CO2 efficient than large vehicles. I would like to state that this simplified view for reduction of vehicle CO2 emission rates is wrong and misleading. Vehicle technology and change in the mix of the vehicles sold are interconnected. The change in the mix of sold vehicles is driven by technology. For example, new technologies make smaller vehicle possess characteristics typically associated with larger vehicles eg vehicle power etc.

It is often claimed that a reduction of the national average CO2 emission rate can be achieved only if unrealistic change in the mix of sold vehicle fleet occurs. This is the share of small vehicles should increase to the expense of large vehicles. Manufacturers claim that they cannot control costumer’s preferences. This is not true, because manufacturers can do quite a lot to attract customers with sensibly designed small vehicles and by implementing viable technologies.

I will take my personal experience as example to support my statement. I bought Mazda 3 because this small car matches the comfort and many other specifications of large car. The fact that Mazda 3 is the most popular model sold during 2010 confirms that many buyers agree with my claim. In my opinion, the legislated standard for CO2 emission rate will motivate vehicle manufacturers to supply on the Australian market models that offer viable but unrealised until now options to customers. Therefore, the legislated limits for sales-weighted average CO2 emissions will stimulate market shift towards small vehicles by appropriately encouraging market suppliers to take decisions, which benefit the society.

It is important to consider any possible rebound effect that could arise from the proposed CO2 legislation. Rebound effect refers to the increase in purchases of large vehicles as result of their significantly improved fuel economy. If some unanticipated rebound effect occurs, then the planned national average CO2 emission rate target will not be achieved because of the government incorrect prediction for the future mix of vehicle classes in Australian fleet. As a consequences, the government may decide to re-define legislated “vehicle attribute v CO2 _emission rate” relationship according to which sales weighted vehicles are contributing to the target not being met. That would be very unpopular and criticised action and hence most likely not be feasible. Therefore, although (it is) challenging/difficult, an accurate estimate of rebound effect is crucial for fulfilment of the committed by this government environmental objective regarding vehicle greenhouse emissions.
Ivan Iankov
Research Associate
Full Member
Barbara Hardy Institute
University of South Australia | City East Campus | Building BJ | Office BJ3-08
GPO Box 2471 | Adelaide SA | 5001
p: +61 8 8302 1956 | f: +61 8 8302 1880
e: Ivan.Iankov@unisa.edu.au | w: http://www.unisa.edu.au/barbarahardy

CRICOS Provider Number 00121B