CO2, Brussels, Washington and Kyoto

(This article was first published in the AWKnowledge Automotive Environment Analyst, September 2005)

Well, it has been an exiting time for the global climate change debate recently. The EU car makers announced that they are not going to be able to meet the CO2 limits they agreed with the European Commission for 2008, never mind the not yet agreed, but much tougher limits proposed by the Commission for 2012. Soon after this 'uncheerful', but unsurprising news, it was announced in Washington that the Bush administration is expected to abandon plans to include SUVs in a revised CAFÉ regime. This is to protect the embattled Big 3 automakers who have much to lose from such a change in regulation; much more than their Japanese competitors, in fact. The Big 3 are also still fighting the proposals by the California Air Resources Board in Sacramento to regulate on CO2, although a similar regime in Canada has already been accepted, albeit reluctantly. Finally, in the UK, the House of Lords select committee on economic affairs published a report entitled *The Economics of Climate Change*, in which it is suggested that the science underlying the Kyoto Protocol may have erred on the side of the negative implications of global warming. The report suggests the science has been somewhat biased for political reasons and that the possible positive results of climate change have been underplayed. This is a significant move as it puts their lordships in the same camp as the self-styled, and much reviled, 'sceptical environmentalist', Bjørn Lomborg. The Danish academic may find himself in the mainstream yet!

The issue of the science behind climate change is an interesting one and climate scientists are among the first to highlight the flaws in their models, in the best academic tradition. One aspect that is still unclear, for example, is the extent to which we humans contribute to climate change. The fact that the research budgets of all climate researchers worldwide, if put together, would probably not provide sufficient funds to develop one new car platform, may have something to do with this, although much of it is also related to the nature of human knowledge and of our ability to assess risk. We are rarely 100% certain about any risk, yet most of us take out insurance against various risks and pay the premiums in the hope we never need to claim. This is the basis of the precautionary principle which guides much of our current political response to climate change

Even looking at the existing climate change models – and I have – it is clear that if they are correct, the remedial action required is such that the real cost would be even higher. It has been estimated, for example, that the UK alone would need to reduce its CO2 emissions by a staggering 85% from 1990 levels if it really is to make a difference and play its role in turning around the global warming trajectory. This means that if all UK residents stopped driving cars tomorrow and stopped flying in aircraft, the UK would still not meet the required reduction. Only if the country stopped most manufacturing and if we all stopped heating our houses would we be able to get there. We could then still run a few buses, and possibly some hospitals – we would need them. In

fact, playing about with climate change models can induce two possible responses – either panic, or complete resignation.

In view of the radical changes required to really make a difference to our present climate change trajectory, in the light of our current information, the Kyoto Protocol is very much like rearranging the ashtrays on the Titanic – it will not make any significant difference. At best it will delay the inevitable by a decade. If we cannot even agree on, never mind meet, the very modest requirements of the Kyoto agreement, our chances of really doing anything meaningful to halt climate change are close to zero. The fact is, the world as currently organised is just not set up to deal with a crisis of this magnitude and played out over this timescale. Experts have wondered in surprise at the self-inflicted environmental catastrophes that befell the Easter Islanders, Anesazi of the US southwest, Greenland settlers and others. However, looking at our civilisation it should come as no surprise – humans, like lemmings are social creatures and we believe in safety in numbers; as long as we all drive Hummers we'll be fine.

Just as well, then, that there are some other factors coming into play that may well have a more positive outcome. First of all, we must give some credit to the European car makers – and to some extent also their Japanese competitors – for what they have already achieved. The number of cars now available that do meet the 140g/km agreed with the Commission has increased dramatically since the agreement was implemented; and people are buying them. In fact, there is a significant number of cars available in EU markets that already meet the 120g/km proposed for 2012 by the Commission. However, for each such car sold, another one is sold that exceeds these limits by some margin.

What has been lagging behind is any true incentives for buyers of cars to choose these lower CO2 emitting vehicles. Some countries have made moves to adjust their regulation – the UK's CO2-based company car tax regime is a fine example – but others are well behind. Consumers themselves have therefore not been party to the agreement between ACEA and the Commission. This would need to be remedied. One possible solution may come from rising oil prices. We have already seen the effects of this in the US, where a lower proportion of the price of fuel is represented by tax and where oil price increases therefore translate into pump-price increases much faster than in Europe. However, the real precedent is provided by the 1973-74 oil crisis, which in many ways transformed the way the world viewed energy. At that time, car makers were able to provide a real response, because car buyers were in support of the energy reduction agenda.

The price of oil has already risen to unprecedented levels and as the point of 'peak oil' is reached this will get worse. Rapidly increasing demand from newly industrialising – and motorising – nations will speed up the decline in the availability of cheap oil. In addition, dependence on Middle East oil has now become a political issue, especially in the US, where several right-wing figures have begun to support the fuel efficiency agenda on political grounds. Some of them have even bought hybrid cars to underline their commitment.

The threat of war and of terrorist attack is a more immediate risk, and in many respects more real to more people than climate change. The possibility of regime change in a key oil supplying country such as Saudi Arabia could therefore do a lot more to control the world's CO2 emissions than the Kyoto Protocol could ever possibly achieve. What is more, the resulting CO2 reduction strategy would enjoy the wholehearted support not only of a 'Bush-ist' US administration, it would also have the support of consumers worldwide, thereby allowing car makers to really justify the investment in CO2 reduction technologies. Of course, as in the 1970s, with the achievements already seen in Europe and Japan, the Big3's traditional enemies will once again be better placed to meet this agenda than the boys in Detroit. In the meantime we had better invest in adapting to the consequences of climate change, as that is not going to go away.

Dr Paul Nieuwenhuis
Centre for Automotive Industry Research & ESRC Centre for Business Relationships, Accountability, Sustainability and Society, Cardiff University, Wales, UK