

Obsession with car sending us way of the DODO

Economic models in dark on carbon

The full impact of controls on greenhouse gas emissions cannot be measured, writes **Alan Moran**.

THERE are many dimensions to the factors pressing for action to reduce carbon dioxide emissions. Among them are genuine concerns that mankind may be causing climate shifts, and the subsequent commercial pressures applied by those, largely in the alternative energy camp, who see the prospect of canalising these pressures to obtain regulatory favours.

Many spearheading calls for action are zealots who are radically opposed to the ways of the world. But many politicians who have endorsed action to cut carbon dioxide emissions do not harbour extremist notions. Most are responding to public opinion and want to feel they are able to do something to mitigate a problem they are told will have severe consequences.

They are also anxious to avoid early major action, recognising that there are costs involved in requiring reductions in emissions. Hence, many have called for the exemption of certain activities or fuels, exemptions that cannot proceed on any big scale because they multiply the costs of those activities remaining. But politicians' concerns are mollified by economists' consistent forecasts that the longer-term costs of action will be no more than the loss of economic growth of a year or so.

The problem with the economic models on which these costs are estimated is that they only tackle small changes in particular products. This is far different from measures that require reductions in production of goods that comprise much of the economy. One way of explaining this is to consider a tax on food. It is not difficult to model the effects of a tax specifically imposed on, say, fish. There would be some changes in behaviour and loss of consumer satisfaction due to people reducing their consumption and switching to other, untaxed, foods that would otherwise not be preferred. All this can be measured.

But the same analysis with food as a product group would be far different. This is an essential part of human

consumption. Energy as a class of goods has similar characteristics.

Calls for reductions in carbon dioxide emissions of 80% are common to the Stern report in Britain and that of Ross Garnaut in Australia. These represent calls for a reduction in a much wider class of goods than economic models normally deal with. There is no empirical data on which to base models for such a carbon tax.

The only recent occasion when a whole class of basic human needs was subjected to a big price rise was the quadrupling of oil prices in the 1970s. Although similar to the carbon tax proposals, two factors mark it as different.

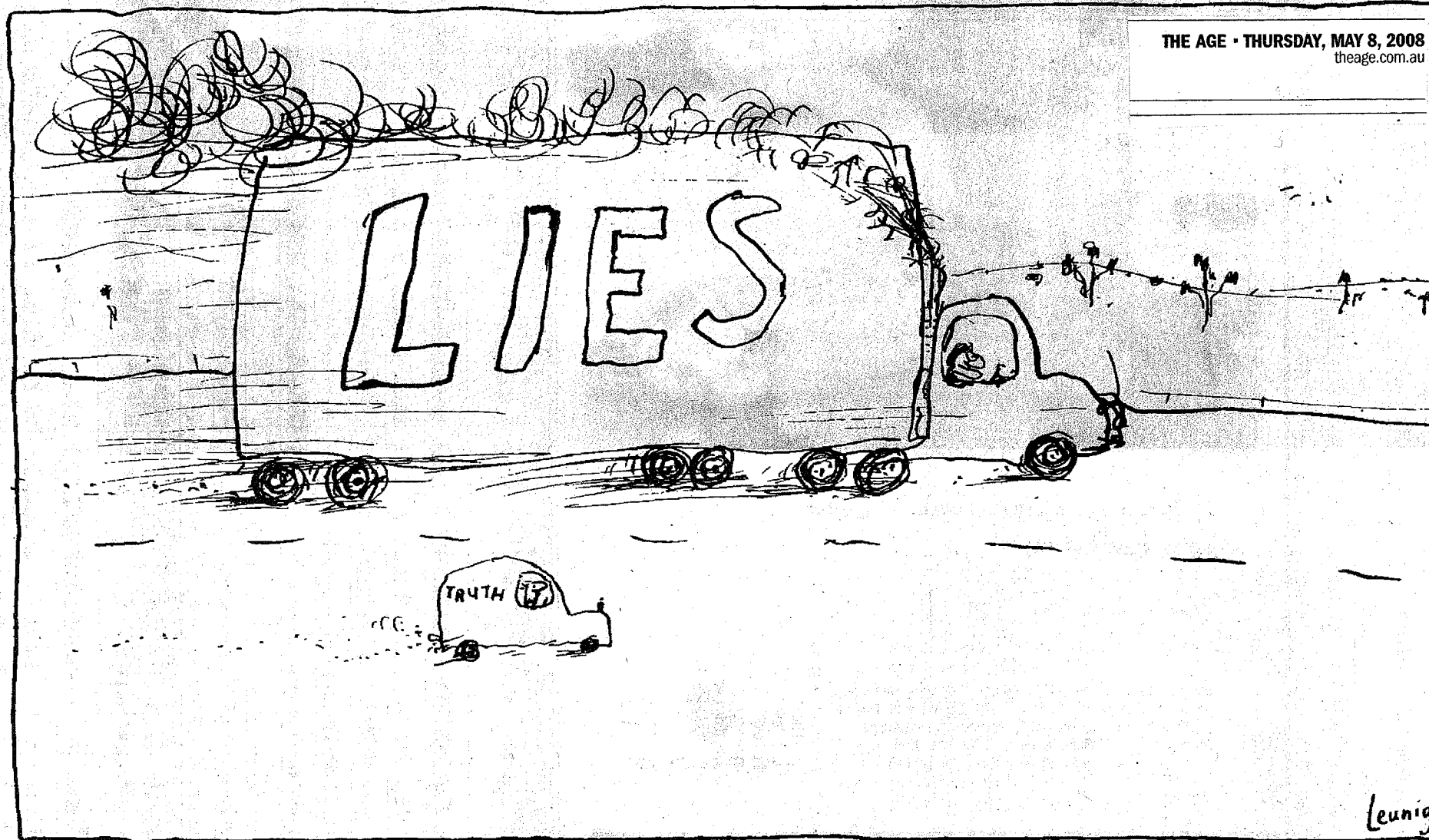
The first of these is that oil, not energy, was the product that faced the price increases induced by the Organisation of the Petroleum Exporting Countries. Though more important than fish within its product group, there are many substitutes for oil. With the oil price increases, coal, gas and, for a time, nuclear energy, showed an upward surge in supply. These were rather more costly/cumbersome to use than oil, but were clear alternatives, albeit at a penalty that would have amounted to several percentage points of income growth.

Secondly, and more importantly, the increase in oil price did not bring a reduction in oil use, except for a blip that was largely due to its accompanying recession. This cannot be the outcome with a carbon tax, which would be designed for no other purpose than to bring reduced use. If this did not materialise, an even higher tax would need to be imposed.

Economic models have been developed in the context of a relatively small shift in cost for classes of products that are minor components of demand. These are being used to determine outcomes for economy-wide changes. The hubris of modellers is such that they will seldom acknowledge they have no idea what the outcomes are likely to be.

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Perverse incentives keep Melburnians away from more efficient transport, writes **Frank Fisher**.

THE many recent environmental supplements in *The Age* and its broad range of articles on the sustainability crisis are heartening. Efficiency and technical change, however, are the "low-hanging fruit" of sustainability. Above looms the tree of social understanding that gives rise to the activities we're trying to make more efficient. Reconstructing it with an eye to sustainability will transform its fruits so that they are no longer unsustainable. This means exposing contradictions and misrepresentations that become apparent once we begin looking at the world through sustainability-sensitive lenses. Once identified, these contradictions can be changed. Here are a few examples from urban life.

Most of us use cars to move around Melbourne. Car engines convert 15% of the energy available in their petrol to motion. The rest is heat, which is part of the reason cities are warmer than the countryside. Few want to ride engines. Engines push cars and together they are some 15 times heavier than drivers; so only one part of that 15% moves

the driver; 14 move the car. Beyond that energy is the energy required to make, maintain and dismantle cars after their dash is done. Still further is the energy to make the infrastructures cars drive in, and to repair the damage they cause us and to the environment. So, for urban commuting, the energetics of the car are very poor. And still we drive.

A similar calculus can be used for the time taken to travel by car. Including the time taken to earn the money to buy, register, insure, maintain, recycle and make good the damage it causes and then dividing this into the number of kilometres actually driven annually, an average speed less than crawling speed is attained. How/why do we overlook these contradictions? And, in the light of other options such as commuting by bicycle and train (bike-rail), which is faster, cheaper, healthier and environmentally sounder, why, still, do we persist?

We persist because the contradictions are invisible. Nothing in our schooling or in our public education (advertising, government publications, media) offers us the intellectual lenses that

would enable us to look at what we do in terms of its wider contexts. Disciplines, professions and trades are isolated and general system theory little recognised and even less taught. In the light of sustainability, many conventional policy settings at all levels, from personal to national, constitute nasty sets of contradictions called perverse incentives. Obvious ones are frequent flyer points and fringe benefits tax. Most are more subtle.

Consider the urban commuter car or DODO (Driver Owned car). The first DO comes about because we are relatively wealthy and expect that having our car beside us gives us flexibility, security and comfort. All three of these are narrowly determined. There is no recognition of the comfort to be gained from the fitness that walking or cycling delivers. There is no recognition that the armouring provided by a 4WD is part of an "armours-race" ending in the Hummer and prompting small car owners to wonder if the 4WD isn't just a robust vehicle for a fragile ego. As far as flexibility goes, the best means of getting around Melbourne is

bike-rail. One Tuesday evening I left Collingwood Town Hall at 6.15pm, cycled to Richmond station, trained to Box Hill, cycled up Doncaster hill to Manningham Town Hall and was in my meeting there promptly at 7pm.

The second DO refers to the idea that access to a car is best when it is part of us, wholly owned! Once acquired and maintained like that, we would be mad not to use it, fuel being a relatively minor cost. So car ownership militates against using other means of transport.

4 Car engines convert 15% of the energy in their petrol to motion. The rest is heat, part of the reason cities are warmer than the country. 7

On the other hand:
■ Entry to public transport comes via "validated" tickets. Without one we are excluded from the system by physical and human barriers. The costs of ticketing including repeated new systems, barriers, evasions, concessions and the income

forgone in those financial black holes called unstaffed stations surely outweigh the revenue raised. Along with the cost of alienation from the system caused by ticketing and its policing, what might have been done with the billions of dollars spent on ticketing systems had they been used for system improvements is almost too painful to contemplate. A "free" system or one partially paid for by a Medicare-like levy, would transform this dismal equation — as *The Sunday Age* tried to say a couple of years ago.

■ Environmental accounting is often absent or misrepresented. Cancer research is funded by car raffles. Meanwhile it was reported in *The Age* motoring section that the Australian Greenhouse Office says cars produce 8% of greenhouse gas emissions but that electricity is the worst offender. This understatement is grossly unfair to the electricity industry. Cars have to be made and maintained, and were these energy uses along with the energy costs of cars' infrastructures attributed to cars instead of power stations, we would have a much more useful

tool with which to assess our commuting demands.

Finally, applying this approach to our coffee cup, how do we make our own mug (the most sustainable container in the long run) acceptable to the local coffee bar in the face of possible legal action should you think the bar's brew made you sick? The action involves being clear about what the Food Act (1984) actually requires, and erecting some mutually acceptable mechanism to ensure that clients and providers both understand their responsibilities in this little transaction. The Food Act, incidentally, is up for review and environmental considerations can now be brought to bear on it — a challenging opportunity for us all and part of the bigger game of investigating and reversing perverse incentives to sustainability.

Perverse incentives create confusion, and confusion results in persistence with old ways. We can do better than that.

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