

How Green Is My Prius?

by Peter C Glover

So just how green *is* that eco-friendly driving choice of the Hollywood celeb culture, the Toyota Prius? The short answer is: a lot less green than [Leonardo diCaprio](#), Susan Sarandon and the eco-glitterati were told when they bought it.

In fact, according to recent research, Messrs diCaprio and Sarandon would have been doing the planet a bigger favor had they invested in one of *CSI Miami's* famous SUV Hummers rather than a Prius – or *any* hybrid currently on the market. How so? Well uncovering the *true* – i.e. *hidden* economic and environmental *production* cost – of green cars and other green ‘alternatives’, holds a few surprises.

Let's start with the industry's leading green car, the Toyota Prius. Powered by two engines – a standard 76 hp, 1.5-litre petrol engine and a battery-powered engine, the Toyota Synergy System that propels the car and its hybrid engines, is an eco-dream combination. Or so it seemed under the *old* Environmental Protection Agency (EPA) standard tests. Acknowledging that these tests were unrealistic the US government has established new EPA tests that will affect performance figures for all 2008 models. Under the old EPA regime the Prius could claim an impressive 60 miles per gallon in the city and 51 outside the city, under the new the average in city drops to 45 mpg. This puts it within spitting distance of other non-hybrids, many of which cost half as much to build. But that is only part of the story.

Building a hybrid like the Prius causes far more environmental damage than producing a Hummer SUV, for instance. The Hummer's road-life (at 300K miles) is around three-times longer than hybrid vehicles including the Prius', according to the annual '[Dust to Dust Automotive Energy Cost Study](#)' from CNW Research published in December 2006. The study reviews of the 'dust to dust' life energy – not just running - costs for all cars sold in the USA. Picking through the vast 458-page report the reason for the shorter lifespan of hybrids appears complex. But 'greener' currently translates as 'specialist' meaning it is built using the latest technology with fewer buyers buying fewer replacement parts. Factor in ever-upgrading new technology and hybrids are costly to maintain. In short, the present generation of hybrids are *not* built to last.

In addition, the Prius is partly driven by a battery that contains nickel smelted by a factory in Sudbury, Ontario. The Sudbury plant has long been the subject of [pollution reports](#). So bad has years of sulphur dioxide-induced acid rain been around the plant that, as the British [Mail On Sunday](#) newspaper reports, NASA even used it for filming purposes. But it doesn't end there.

As the same *Mail On Sunday* article reports, the nickel produced at Sudbury is sent via large container ships to the world's largest nickel refinery – *in Swansea, Wales*. Next it travels to China where 'nickel foam' is produced. It then moves on to Japan where the batteries are actually made and then sent on to the USA where it ends its globetrotting life in a Prius car.

According to CNW's *Dust to Dust* report, only the Toyota Prius, at \$2.87 per mile, among all hybrids provides better lifetime efficiency than the auto average of £2.94 per mile, hence its status as the 'prince of hybrids'. The report states that "lifetime efficiency" relates to the "approximate mileage for at the time it is removed from the streets as a daily-use vehicle and sent for disposal..." By this standard the Hummer H3 SUV, for example, runs out at just \$2.07 per mile over its lifetime, with the Ford Five Hundred all-wheel-drive sedan at £2.22 per mile. In short, the flagship green car of energy-saving zealots everywhere requires, as *Dust to Dust* reports, *almost fifty per cent more energy* to build and drive than the SUV Hummer and other non-hybrids.

Neither does the problem of hidden cost just affect 'green' cars. It affects the green biofuels that run some 'eco-friendly' vehicles and other renewables too, as far apart as lightbulb and wind turbine production.

The problem with biofuels is the growing conflict between finding enough land to grow the constituent ingredients for food or for biofuels, as [Energy Tribune](#) has reported. Palm oil, is the key ingredient of biodiesel, for instance, while corn, is the key ingredient in ethanol. Over eighty-five percent of palm oil comes from just two countries – Indonesia and Malaysia – and is used in the production of all kinds of foodstuffs and other consumables. But such is the current [frenzy for palm oil](#) that the rainforests of Southeast Asia have come under severe threat. Rainforests are being logged and burned to make way for new plantations. This process has produced thick smog that covers parts of Southeast Asia. Peat swamps have to be drained to expand the plantations and, as the peat dries, tons of carbon dioxide are released into the environment. Indonesia is already the third-largest producer of carbon dioxide, behind the USA and China. According to a report in January from Credit Suisse, existing biodiesel plants and those in development will easily "soak up" all of the palm oil currently available.

The EU has recently banned incandescent light bulbs in favour of low-energy alternatives from 2009 and the [US is considering a similar ban](#). The fact is, however, that low energy bulbs are up to 20 times more expensive and use ten times more energy to produce than standard bulbs as a recent expose in the British [Daily Mail](#) has revealed. The new bulbs need much more ventilation than standard bulbs and cannot be used in any enclosed light fittings. In the UK it is estimated that it will cost the nation around £3 billion to change fittings to cope. But low energy light bulbs also use toxic materials in the production process. Perversely, one of those toxic materials is mercury vapour – a substance the EU recently banned from its landfill sites. This will mean costly recycling problems in European countries too and, if the US goes down the same unenlightened path, there too.

None of this is intended to suggest that new technologies are not *part* of the answer to our future energy needs and environment demands. They plainly are. But the current

rush for the 'green vote', driven by an alarmist eco-activism fuelled by a raft of well-meaning but often uninformed individuals and groups making over-simplistic 'moral choices', is obfuscating serious economic, environmental *and* moral issues.

Ultimately, it will be the world's poor, not the pious Prius-affording Western elites, who will pay the highest price if we rush headlong into making the wrong choices.