

## Fuel costs car buyers more than firms say

Every new-car buyer in countries following Europe's car industry legislation is paying far more for their fuel than they expected, according to a new real-world fuel consumption study. It includes SA.



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A study by the International Council on Clean Transportation (ICCT) has found that the average car buyer will pay more for fuel compared with the figure cited by manufacturers under the New European Driving Cycle (NEDC).

It also found the gap between the NEDC figure and the realworld consumption levels of cars and SUVs has reached a record level, with on-road  $CO_2$  emissions 42% higher than the quoted laboratory figure.

The ICCT, which was involved in uncovering the Volkswagen Group's Dieselgate emissions cheat, insisted the difference between the NEDC lab test and the real-world emissions was just 9% 15 years ago.

In a new report, the ICCT confirmed that emissions gaps existed in all major markets, but were the largest in Europe and in countries that follow the NEDC figures, such as SA.

"The gap between sales brochure figures and the real world has reached another alltime high," says Uwe Tietge, lead author of the study.

The ICCT report trawled through data from 1.1-million cars and SUVs across eight European countries and 14 sources of data, and found the gap has continually increased over time and has "effectively cancelled out two-thirds of the on-paper efficiency improvements since 2001. Since 2010, hardly any real-world reductions in CO<sub>2</sub> emission values have been achieved."

The report concludes that one of the long-touted  $CO_2$  saviours of the car industry, plug-in hybrids, were the worst performers compared with their NEDC emissions.

"The publication of the ICCT Laboratory to Road report highlights the abject failure of the current car CO<sub>2</sub> regulation," transport and environment director of clean vehicles and e-mobility Greg Archer says.

"Since the car CO<sub>2</sub> regulation was agreed in 2009 just 40% of the improvement has been delivered on the road with almost no change in real-world emissions for the past five years," Archer says.

"The European Commission must be ambitious in the forthcoming proposal for 2025 and 2030 car CO<sub>2</sub> standards. Specifically, it must ensure emissions cuts are delivered on the road and catch up a decade of failure in which car makers cheated [in] an obsolete test.

"The introduction of [an] additional real-world CO<sub>2</sub> test, similar to that now being used to tackle diesel NOx emissions, will ensure the new lab test isn't manipulated like the old one."

The commission is expected to make an announcement about vehicle pollution in an effort to restore consumer confidence, especially in diesel power. The NEDC, though, was not designed to be a real-world fuel consumption test, but rather a laboratory test that was repeatable and simple to calibrate for every car maker in every country.

In a recent interview, Volkswagen brand CEO Herbert Diess seemed to confirm Archer's disdain for the NEDC as a measure of real-world efficiency.

"It [emissions] depends a lot on the testing. On any diesel [vehicle] you can provoke a ten-fold increase, depending on the driving condition," Diess says.

"We have to control the emissions systems whether they are working continuously and you need a set of standards that show this is how we test a car and this is how you test a car and we have the same measure," he says. The NEDC famously applies little full throttle or hard acceleration, a point that many struggle with, including Diess.

Emissions "depend highly on how you use that engine. First of all is throttle and then second there is load. In the cycle you have low, low speed cycles and very low load cycles. In the average of the NEDC cycle the car would consume about 10kW " This is nothing compared to the installed power of the car, which is 100kW or 150kW. You can imagine if you only need 10kW and you only need so much throttle to do it, this is nothing compared to the emissions on a motorway where you use 150kW.

"We have the discussions now between bench testing and road testing.

"I tell you only since three or four years, in one or the other sophisticated solutions, this equipment has been available to test the cars on the road."

The NEDC is due to be replaced by the Worldwide Harmonised Light Vehicles Test Procedure, which will come into force in Europe in 2018, although it has been run with the NEDC from September 1.

## **Result variations**

Although the new standard includes real-world testing, there will be variations in results stemming from irregular traffic flows and weather conditions, but it addresses concerns about the NEDC not using air-conditioning or seat heaters or large tyre sizes.

"But even the new test procedure contains new loopholes that could permit the performance gap to increase again in the future," ICCT managing director Peter Mock says.

Its investigations into other markets found the US Environmental Protection Agency's label values delivered far better realworld figures than in Europe, with virtually no gap in 2014.

While the European experience was poor, the US gap was the smallest, China was in the middle and Japan the worst.

With standards authorities in SA using the NEDC figures, which are also used to decide on the CO<sub>2</sub> tax, it will now be a matter of deciding whether to implement the European realworld figures or decide on something else altogether.

Source: Business Day

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