How will the changes affect me as a Kia owner

If you purchased a Kia in 2017 showing the old NEDC system, you may find that the same car released later with the new WLTP states higher levels of $\mathrm{CO_2}$. This is due to the stricter and more thorough nature of the new testing system. However, to avoid confusion, cars released during the interim period will still be sold showing the back-translated NEDC figures to make data more comparable. Another point to note, the tests will not affect actual fuel consumption, but they may show higher $\mathrm{CO_2}$ values due to the stricter measuring.

Will I have to pay more tax?

More CO_2 shouldn't equate to more tax during the interim period. It is up to the national governments to create fair regulations to ensure there is no additional financial burden when purchasing a more recent model of the same car.

"The new WLTP test aims to provide more accurate comparable vehicle data that better reflects realistic driving conditions."

How will this affect different drive trains?

Conventional petrol and diesel engines will be measured using the procedures outlined above. However, plug-in hybrid vehicles will undergo more tests to account for different charging states. For example, one test will measure performance with a full battery; the cycle will then be repeated until the battery is empty; a final test will measure data using the power derived exclusively from the combustion engine and regenerative braking. The combined figures will then form the basis for CO, emission levels.

WLTP transition timeline

Since September 2017

New models are tested according to WLTP. During this interim period, data is back-translated into NEDC values to allow for better comparison with older models.

September 2018

All cars sold in the EU must be certified with WLTP. An exception will be made for end-of-series vehicles to allow for a limited number of unsold vehicles in stock that were approved under the old NEDC test to be sold for one more year.

January 2019

All car dealerships will show test values only according to WLTP on all their new models.

December 2020

All countries that adopt the EU legislation for vehicle registration will have to supply WLTP values for all vehicles.

For a greener future with WLTP – clearer picture, bright opportunity

While the new WLTP measures may initially point to higher levels of pollutants, the tests also offer a great incentive to drive more efficiently. At Kia, we're committed to a greener future. As part of our 5-year Green Goal, we are increasing our range of fuel-efficient cars and are constantly developing new measures for greener driving. In 2015, we launched our first fully electric car, the Kia EV, followed in 2016 by the Kia Niro, our first Hybrid Utility Vehicle (HUV). By 2020, we will have increased our line-up of green vehicles significantly.

To find out more about Kia's green car range, please visit kia.com/ For further information on WLTP and how it will affect you as a vehicle owner, please contact your national automobile association.

WLTP

For a clearer picture of vehicle emissions and consumption



The Power to Surprise

The testing measures for car pollutants, emissions and fuel consumption are changing. That's because the old system, the so-called **New European Driving Cycle (NEDC)** introduced in the 1980s, has become outdated. It will gradually be replaced by the Worldwide Harmonised Light **Vehicle Test Procedure (WLTP)**. Whereas the NEDC was based on theoretical driving, the new laboratory test is designed to give a more accurate picture of fuel consumption, pollutants and CO₂ emissions in passenger cars. The WLTP is supplemented by an emission test that measures pollutants directly on the road, the RDE (Real Driving Emissions). As the name suggests, it measures emissions in the real-world, not in the laboratory. These improved measures are gradually rolled out across the European Union and other regions worldwide. From September 2018, all new cars must be certified according to the WLTP standard.

What's the difference between NEDC and WLTP?

The new WLTP test aims to provide more accurate comparable vehicle data that better reflects realistic driving conditions. For example, while the old NEDC standard only covered three driving scenarios (urban, extra-urban, combined) - the WLTP driving cycle is divided into four parts with different average speeds: low, medium, high and extra high. Each part contains a variety of driving phases, stops, acceleration and braking phases. For a certain car type, each powertrain configuration is tested with WLTP for the car's lightest (most economical) and heaviest (least economical) version. It also takes into account the effects of optional equipment on weight and aerodynamics etc. As a result, both the test distance and the overall duration of the procedure have been extended. The combination of all these new measures should offer a real-world picture of a car's performance on the road. Even so, it is important to bear in mind that the test is still based on lab data. WLTP cannot

measure individual variables like personal driving style which can also impact fuel consumption and emissions.

"the new laboratory test is designed to give a more accurate picture of fuel consumption, pollutants and CO₂ emissions in passenger car"

WLTP benefits at a glance

- · More realistic driving behaviour
- A greater range of driving situations (urban, suburban, main road, motorway)
- · Longer test distances
- · More realistic ambient temperatures
- · Higher average and maximum speeds
- · Higher average and maximum drive power
- More dynamic and representative accelerations and decelerations
- Shorter stops
- Optional equipment: CO₂ values and fuel consumption are provided for individual vehicles as built
- Stricter car set-up and measurement conditions
- Allows best and worst-case values to reflect the options available for similar car models

NEDC and WLTP compared

TEST CONDITIONS	NEDC	WLTP
Test duration	20 min.	30 min.
Test distance	Approx. 11 kilometres	Approx. 23 kilometres
Time spent stationary	25%	13%
Test phases	Urban, extra-urban, (combined)	Low, Medium, High, Extra high, (Combined); (plus "City" for electric vehicles and vehicles with plug-in hybrid drivetrain)
Speed	Average: 34 km/h, Maximum: 121 km/h	Average: 46.6 km/h, Maximum: 131 km/h
Start temperature	20–30°C – Cold engine start	14–23°C - Cold engine start
Special equipment options	Not taken into consideration.	CO_2 values will now take into account the weight and effects on aerodynamics of optional equipment such as tyres, air conditioning etc.