

## Kia e-Niro – First Impressions

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Alternatively fuelled vehicles, pure electric, petrol-electric hybrids and plug-in hybrids saw a 21% increase in UK new car sales last year to 141,270 units, but only 15,474 of those

vehicles were pure electric models. So far this year only around 2,000 battery electric cars were sold in the first five months of the year. Still small steps might lead to big strides as automotive manufactures have to meet even more stringent emission levels by 2021, punishable by fines for the manufacturers if they fall short of this target.



Britain, like other European countries, signed up to achieving the 95 g/km of CO2 emissions level as an average for their whole range of new car models on sale from 2021. In effect that target will have to be reached by the end of NEXT YEAR when 2021 model year vehicles will be on sale.

To meet the 95 g/km target manufacturers have been, and still are, busy forming partnerships with each other to share the cost and ideas to develop and manufacture electric technologies to meet the new regulations – and the even tougher low emission targets in the future. Only this week BMW Group and Jaguar Land Rover announced collaboration to develop their next generation electrification technology.

Whether we are still in the EU or 'Brexited out' makes no difference, Britain is signed up to the Europe wide directive to meet that 95 g/km total range average for CO2 emissions.

This week Kia Motors UK held a media driving day for their latest range of new models, where the all-electric new e-Niro 'Crossover' was the star of the event. Stephen Kitson their Corporate Communications Director said, "The new 95 g/km EU directive it is going to be very hard to meet in the UK alone if we going to be outside the EU in future. Because diesel sales have fallen drastically and petrol powered sales have increased, that has raised current CO2 levels for UK new car sales. We at Kia-Hyundai, have been working for years to meet the 95 g/km range average of CO2 emission target as a member of the EU. If the automotive industry fails to meet the target manufacturers face horrendous fines, somewhere in the region of 9 Euros per gram per unit above the 95 g/km figure. It will cost the industry hundreds of millions of Pounds in fines. Potentially new car prices will have to increase or manufacturers will have to absorb some of the cost or sell fewer cars with higher CO2 emission levels".

He added that if the UK stays in the EU, manufacturers have a better chance of meeting the new target figure because the overall EU new car market includes countries which currently have a higher uptake of zero emission new car sales, and includes other countries where sales of new generation lower emission diesel cars are still strong. This means the overall



average CO2 figure is easier to achieve across a wider range of vehicles sold in a wider range of countries.

The Government's recent decision to abolish the £3,500 grant off the purchase cost of new PHEV models (Plug-In Hybrid Electric Vehicle) and the reduction of the £5,000 grant to £3,500 for each new electric powered car sold has sends mixed messages to the public and has not helped the car industry to achieve the required number of sales of low CO2 emission cars needed to reach the 95 g/km target.

Figures issued this week by the Society of Motor Manufacturers and Traders in the UK show sales of PHEVs have fallen by 25% for the first five months of this year because of the removal of the purchase incentive. However sales overall of Alternatively Fuelled Vehicles – battery electric, petrol-electric hybrids and a declining number of PHEVs, show an overall increase of 13.8% for the year to date, but battery powered pure-electric models have still only accounted for around 2,000 sales so far this year. The motor industry and whatever Government we end up with needs to get on-board with electrification for new cars and to build the re-charging points infrastructure. They need to instil confidence for new cars buyers that electric power is the way forward and also the power generating industry has to have the capability to meet the demands for electricity all the year round.

There is a whole raft of new e-models scheduled to arrive in the market, including those from Vauxhall with the Corsa-e, Peugeot e-208, Honda e, MINI Cooper SE and a whole line-up from the VW Group of brands as well as the likes of BMW, JLR, Mercedes-Benz, Aston Martin and of course Tesla. More competition should hopefully lead to more competitive prices and longer driving ranges between the need to find a charging point.

Currently the biggest issues for customers adopting these new zero or low emission vehicles remains the high purchase price and driving range anxieties because of the slow growth in providing public charging points for long journeys.

Some manufactures already offer various solutions to meet owners' practical needs in being



able to make those longer trips at-will yet reduce the CO2 emissions their vehicles emit. Take as an example Kia, the South Korean brand, which has become hugely popular in the UK with annual sales edging towards 100,000-units. Their vast range of petrol, diesel electric, hybrid and plug-in hybrid models range from small city cars to large SUVs and MPVs includes no less than five different SUV ranges. SUVs account for around a third of all new cars sold in the EU and UK and Kia has seven hybrid and electric cars on sale in the UK, with five more planned by the end of 2021.

Kia already supplies an EV (electric vehicle) model in their Soul compact SUV range and their larger Niro Crossover/SUV range includes 1.6 petrol, 1.6 petrol-electric plug-in hybrid and now the all-new e-Niro model, which is pure electric power, and that is the version I plugged myself into at this week's Kia model range media driving day.





The Kia e-Niro 64kWh 'First Edition' is currently a one model range and costs £32,995 on-the-road after the £3,500 Government grant has been applied. The e-Niro is termed a 'Crossover', in effect elements of SUV styling mixed with the convenience of C-segment hatchback sizing. It has five doors, five seats, an elevated ride height and loads of specification as standard. Most importantly it has an official WLTP Combined Cycle driving range between charges of 282 miles but a City driving range of 382 miles. In addition it's VED road tax free, it's London Congestion Charge free and it emits zero CO2 emissions at the tailpipe – but as we know the production of electricity from power stations, even allowing for more wind and solar power, does produce CO2.

The Kia e-Niro might be new but it has already won several important Car-of-the-Year Awards. It's been termed a 'game-changer' for electric car travel. It's certainly proving popular with UK customers with the 800 units allocation for this year already sold and 1,200 expressions of interest for 2020 from potential UK customers. The global demand for this vehicle is so high that each country is supply-restricted.

The e-Niro uses a new purpose-designed platform to meet the needs of battery electric, petrol and petrol-electric hybrid propulsion systems. Current Niro petrol and petrol-electric hybrid models will shortly be replaced with the same power choices but by models using this new platform and overall styling.

The e-Niro has a 64kWh electric motor which produces 201 bhp and a massive 395 Nm (291 lb.ft) of torque from zero to 3,600 rpm. This gives a top speed of just 104 mph but an impressive zero to 60 mph acceleration time of just 7.5 seconds – but it's the driving range between charges of 282 to 382miles that impresses most, and of course no road tax costs. Charging times for the 150kW Li-ion polymer battery vary depending on what private or public charging point is used. A household AC 3-pin supply will take massive 29 hours for a zero to 100% charge, a 7.2kW charging point does the same charge in just under 10 hours but using DC 50KW high speed charging for 0 to 80% takes 1 hour 15 minutes and a DC 100kW point takes 54 minutes for 0 to 80% capacity. Kia estimates a home full charge will cost around £4 depending on what tariff is used by the customer. Public charging point



costs vary hugely depending on the high premium price applied at the facility by the supplier/operator.

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Drive to the front wheels is through a simple one speed forward, one speed reverse transmission operated by a centre console mounted dial marked D for drive, R for reverse and a centre P push-button for park. So it's press the accelerator and go to the sound of a faint wine from the electric motor. There are the usual Eco, Normal and Sport driving modes and there is significant difference between all of them but the Eco mode is more than adequate for most driving conditions. The vehicle also has regenerative braking for electric power harvesting to extend the driving range. This can be adjusted on-the-move by using the steering column mounted paddles. The strength of the power harvesting in its maximum setting is very noticeable and very quickly reduces the speed of the vehicle to almost a standstill, providing one-pedal driving in-town. On this maximum setting the rear brake lights are illuminated to warn following drivers the vehicle is slowing down.





With the huge battery pack mounted low-down in the vehicle the weight of its mass keeps the e-Niro very firmly planted to the road during cornering, the steering felt on the light side but it remained precise enough during my 40-mile test drive using winding Cotswold roads this week with some busy in-town stop-start driving included. There was plenty of information supplied by the on-board computer as to the battery power used and the range remaining. It seemed to work out that 1% of power used per one mile travelled so the Combined Cycle range of 282 miles seemed accurate. Interestingly the display also showed that my test drive saved 10.2 lbs of CO2 weight compared to a similar sized petrol engine. The standard fit sat-nav system also showed the nearest public charging points and the distance to them for peace of mind travel.





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The spec is high, just like any other top level SUV, with all the usual modern-day driving safety aids, and it all looked and felt well put together with a comfortable ride and plenty of interior space and load carrying capacity with ample rear seat legroom. It's very easy to drive but it takes a little longer to understand all the driving support information. Of course it is covered by Kia's usual seven years/100,000 miles warranty.

## **VERDICT**

Electrically powered cars of varying sizes and types are the way forward, they have to be, to meet forthcoming CO2 emissions regulations, and the new Kia e-Niro is certainly a 'game



## changer' in that direction.

For: Spacious, practical, long real-life CO2 free driving range, good acceleration and driving pace, easy to drive, well-equipped, long warranty.

Against: Long waiting list, purchase price is hard to justify for some customers compared with petrol/diesel powered estates and SUVs of a similar size.





## Milestones and Wheels-Alive Tech. Spec. in Brief:

Kia e-Niro 64kWh First Edition all electric 'Crossover'.

Price: £32,995 after the Government's £3,500 grant is applied.

Drivetrain: 201 bhp, 395 Nm (291 lb.ft) electric motor, 150kw battery pack, 1 forward, 1 reverse gear ratios, front wheel drive.

Performance: 104 mph, 0-60 mph 7.5-seconds, WLTP full charge driving range for City driving 382 miles, Combined Cycle 282-miles.

Emissions and taxation: CO2 0 g/km, VED road tax free, London Congestion Charge free, BiK company car tax 13%.

Insurance Group: 28.

Warranty: Seven years/100,000 miles.

Dimensions/capacities: L 4,375 mm (14.35 ft), W 1,805 mm (5.92 ft), H 1,570 mm (5.15 ft), wheelbase 2,700 mm (8.86 ft), boot/load space 451 to 1,405 litres (15.93 to 49.62 cu.ft), five doors/five seats.