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Kia Niro Petrol Electric Hybrid Road Test

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David Miles (Miles Better News Agency) Test-drives Kia's Niro Petrol Electric Hybrid Crossover...

As global manufacturers are forced by legislation to constantly reduce the emissions of their passenger vehicles both by model and for their entire ranges overall, more and more cars



are being offered with some form of electric only power or hybrid technology. These include outright charge-up electric models, petrol/electric, diesel/electric, plug-in hybrids and even hydrogen powered power sources.



This growing form of automotive power not only reduces CO2 emissions but for customers it means reduced road tax costs, plus lower Benefit-in-Kind company car tax rates – and some are free of the London Congestion Charge. Some less expensive plug-in hybrids also benefit from the purchase price being subsidised by the Government's plug-in £2,500 vehicle grant.

Kia, for instance, has pledged to reduce the average CO2 emissions of their range by 25% before 2020. Their new Niro petrol/electric hybrid sits between their Cee'd C-segment family hatch and estates and the high selling Sportage SUV. It can best be described as a



'crossover' similar in size to the Nissan Qashqai, with a petrol engine electric motor hybrid drivetrain similar to that of the Toyota Prius.

The Niro, with its five doors, plump body, plastic wheelarch cladding and roof rails, looks like a pseudo SUV, but it is strictly front wheel drive so in real terms it's a bulky looking and roomy five seater estate. It has been specifically designed to be a hybrid vehicle with no petrol, diesel or 4WD versions to come.

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It is a product of Kia's California and South Korean design studios and you have to accept that these will be its two biggest markets. Kia is reported to expect to sell around 2,500 Niros in the UK in a full year but that will significantly increase when the reduced emission, lower taxed plug-in petrol/electric hybrid versions arrive early next year, and should benefit from the Government's plug-in vehicle grant of £2,500. 'PHEVs' as they are known, are popular with company car users because of their even lower Benefit-in-Kind taxation costs.

For now the new Niro is available priced from £21,295 through four trim and equipment levels up to £26,995. All have the same 1.6 litre GDI direct injection non-turbo 104 bhp petrol engine working in tandem with a 32 kW (43b hp) electric motor, giving a total power output of 139 bhp and 265 Nm (195 lb.ft) of torque. The lithium-ion polymer battery pack is positioned alongside the petrol tank under the rear seats. Drive to the front wheels is through a six-speed dual-clutch automatic gearbox rather than the more commonly available continuously variable (CVT) systems. The gearbox incorporates a Manual Sports mode to allow for keener driving but unfortunately it doesn't have gear-shift paddles on the steering column.

The spec levels need to be considered carefully as they determine not only the purchase price but fuel economy, CO2 emissions and the Benefit-in-Kind tax rates as well. Spec levels '1' and '2' have CO2 emissions of 88 g/km with an official 74.3 mpg figure, which means no VED road tax charge for any year of ownership, and BIK company car tax is 15%. Spec level



'3' and 'First Edition' models, due to their larger wheels and heavier weight, officially return 64.2 mpg and have CO2 emissions of 101 g/km so VED is £0 for the First Year rate and then £20 for Year Two onwards, and BIK tax goes up to 17%. As for performance figures all versions have a top speed of 101 mph and zero to 60 mph takes 11.1 seconds.

Unlike the quirkily styled Toyota Prius the Kia Niro could be mistaken for a petrol powered 'soft' SUV, but it isn't, it is just a muscular looking crossover with a high roof, curvy styling lines with the Kia 'tiger-nose' grille and high up headlights up front. At the rear is the full height and wide tailgate with a high level spoiler for good measure. Access into the 421 litre (14.87 cu.ft) boot is easy with virtually no rear lip to load items over. With the 60/40 split rear seats folded completely flat there is a user-friendly 1,425 litres (50.32 cu.ft) of load space. With its long 2,700 mm (8.86 ft) wheelbase and ample width of 1,805 mm (5.92 ft) the rear seats are roomy with enough legroom for adults.



Up front the seats are wide and comfortable and the elevated seating position gives good visibility although the front quarter pillars do create blind spots at road junctions. The plastic trim is textured, which gives a nice clean appearance, and depending on the grade there are high-gloss black or white inserts in the steering wheel, dashboard and door panels. The seats are upholstered with artificial leather on the top spec versions or cloth for



the more basic variants. It all looks well put together with clear instrumentation and well-positioned switches. The usual rev counter is replaced by a power usage meter showing Charge, Eco or Power modes. All but the base '1' grade have leather covered steering wheel and gear shift lever and a seven or eight inch easy-to-use touchscreen navigation system.



Every version has lane keep assist, hill-start, cruise control, stability control, air-con, alloy wheel and electric windows and door mirrors, LED daytime running lights, DAB radio and computer. Grade '2' (the most sensible level due to its price and low taxes) additions include a seven inch touchscreen, sat-nav, reversing camera, Kia Connected Services and reversing sensors. Grade '3' adds 18-inch wheels, leather upholstery, front parking sensors, heated front seats and steering wheel, electric adjustable driver's seat and upgraded audio system, larger touchscreen and wireless mobile phone charger. The 'First Edition' version I tried



has grey leather trim and white interior trim inserts, smart key engine start/stop button, heated outer rear seats, ventilated front seats and electric tilt/slide sunroof.

In short the Niro is of good spec and roomy with the potential for eco-friendly motoring. The 1.6 litre, four cylinder non-turbo petrol engine works more or less most of the time in tandem with the electric motor. The power units are more about efficiency than power. The combined power output is 139 bhp with 265 Nm (195 lb.ft) of torque available from standstill in first gear. The electric motor can operate on its own from standstill for short distances before the petrol engine starts up. The electric motor will also run on its own at a very gentle pace, say 'in-town' nose to tail driving or when descending slopes or during braking during the overrun phase. The brake energy recovery system recoups power into the battery during braking or deceleration but it is a mild form of 'power harvesting' as other hybrids or PHEVs harvest power more strongly, and in some cases have adjustable harvesting strength where the most aggressive setting virtually means very little braking is needed slowing down in traffic or going down hills. That said the battery on my test drive Niro rarely dropped below 50% full which left me feeling the electric motor could do more work as I found the petrol engine cut in too soon after start up and travelling at low in-town speeds when EV propulsion would have been more effective.

Officially this top spec Niro, costing £26,995, has an official average fuel economy of 64.2 mpg with CO2 emissions of 101 g/km. In reality the best fuel consumption my test car achieved was 55.4 mpg when used for local driving over country roads, with plenty of opportunity for downhill charging or when braking for corners. On a 200 mile motorway journey the worst economy figure was 48.1 mpg so 70 mph cruising isn't the most efficient form of use, and again a bit more involvement from the electric motor with battery showing at least 50% charged might have helped better the mpg figure. Overall the vehicle finished up at 52.4 mpg, still good for a vehicle of this size with a 1.6 litre petrol engine as its main power source.

Generally the engine and electric motor worked well in harmony with each other with a smooth shift between modes, and the six-speed dual clutch auto box provided seamless but



slow gearchanges. This was marginally better than a CVT continuously variable type gearbox but not as sharp or fast as a conventional dual clutch auto with petrol or diesel engines. Only under hard acceleration did the petrol engine begin to sound stressed. Top speed is a modest 101 mph and the zero to 60 mph acceleration time was just about adequate at 11.1 seconds.

Tyre noise intrusion with the 18-inch wheels fitted to my test vehicle was high and cruising at 70 mph the noise drowned out the sound of the engine. I'm told that the ride comfort is better with the smaller 16-inch wheels. Generally the ride was comfortable but harsher road surfaces and potholes found the suspension unable to cushion impacts jarring into the cabin. The body control didn't feel especially sharp with bodyroll evident during even modest cornering speeds. I rather suspect the handling is set up for the main US and Korean/Asian markets where motoring is done at a more sedate pace. Also a feature of its design roots was the irritating foot operated parking brake and the numerous annoying warning chimes and prompts.

VERDICT

Overall the Kia Niro is an interesting vehicle; big on interior space and high equipment levels, and low on CO2 emissions. It is only ever going to be a vehicle with petrol/electric hybrid or plug-in hybrid power sources and it would have more appeal for more people in Europe if there was a diesel engine option.

For: Pleasant but uninvolved to drive, roomy, low tax costs, high specification, an alternative to diesel powered crossover vehicles, seems well built, long warranty.

Against: Top spec models with larger wheels have a higher level of CO2 emissions so higher road and company car tax costs, very harsh ride at times with the larger wheels, electric motor could offer more support to the petrol engine judging by the low use of battery power.



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

Kia Niro Petrol Electric Hybrid 'First Edition'. Price: £26,995.

Drivetrain: 1.6 litre normally aspirated four cylinder petrol engine and 32 kW electric motor with lithium-ion battery pack, total power output 139 bhp, 265 Nm (195 lb.ft) of torque, six speed twin clutch automatic gearbox, front wheel drive.



Performance:

0-60mph: 11.1-seconds.

Top speed: 101 mph.

Fuel consumption: Official average economy 64.2 mpg (52.4 average on test).

Emissions and taxation: CO2 101 g/km, VED £0/£20, BIK company car tax, 17%.

Insurance Group: 12.

Warranty: Seven years/100,000-miles.

Dimensions/capacities: L 4,335 mm (14.22 ft), W 1,805 mm (5.92 ft), H 1,545 mm (5.07 ft), boot/load space 421 to 1,425 litres (14.87 to 50.32 cu.ft), five doors/five seats.