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# Kia Optima PHEV Hybrid Saloon Road Test – plus news on crucial changes from April 2017 to road tax and BIK tax

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Kia's Optima PHEV Plug-in Hybrid Family Saloon...

Assessed by David Miles (Miles Better News Agency).

With significant tax changes due for all new cars bought from 1 April next year, both in terms of VED road tax and Benefit-in-Kind company car tax, sales of 'Alternatively Fuelled Vehicles' (AFVs) in the UK will only continue to grow.

The choice is also getting better with more and more manufactures offering hybrids, range extender, plug-in hybrids, full electric and a smattering of hydrogen fuel cell models to





choose from. Even though petrol and diesel engines are getting more fuel-efficient with lower emissions, manufactures are legally being forced to reduce CO2 and NOx exhaust outputs across their entire range and hybrids/electric models are a path towards achieving these requirements.

Alternatively-fuelled vehicles UK sales grew by 25% in November to 6,663 units, representing a 3.6% share of the new car market – the highest market share ever achieved. For the year to date over 82,650 AFVs have been sold in this country – a 23.4% increase over last year.





One of the latest PHEVs, (Plug-in Hybrid Electric Vehicle) is Kia's new and highly praised Optima family saloon range, which until now has only been available with a 1.7 litre CRDi 139 bhp turbodiesel engine with prices from £21,495 and up to £29,395 for a top spec automatic. The Optima PHEV, with its standard six speed auto gearbox and one level of high spec, costs £33,995 but is available for the Government's £2,500 plug-in vehicle grant. The Optima Sportswagon estate is only available for now with the diesel engine option and is priced from £22,295 to £30,595.

Having only launched the new and much larger, better quality and higher specced D-segment (upper medium sector) Optima range in the middle of this year with the PHEV joining a month or so ago, Kia expects to sell 1,400 estates this year, 500 saloon versions and 300 PHEVs. More than 80% of all versions are expected to go to fleet and business user-chooser customers. All versions are covered by their 7 year/100,000 miles warranty.

Even with the Government's plug-in grant the Optima PHEV saloon is not exactly cheap to buy but where it scores is with its very much lower levels of tax costs. With CO2 emissions of only 37 g/km VED road tax is free every year although new PHEV models bought from April next year will still have a £0 First Year rate but for the Second Year onwards that goes up to £130. So the answer is buy, or most likely lease, a new Optima PHEV and other plug-in hybrids before April 2017.

When it comes to company car Benefit-in-Kind tax, currently with the 37 g/km CO2 figures BIK tax is rated at 7% and that goes up to 9% from April as well. By comparison the 1.7 litre diesel Optima saloon with CO2 emissions from 113 g/km will cost £30 in VED road tax every year if bought before April and after that it increases to £160 for the First Year rate and then bizarrely £140 for every year after that. Benefit-in-Kind company car tax for the diesel model is currently 22%, going up to 24% from April onwards.

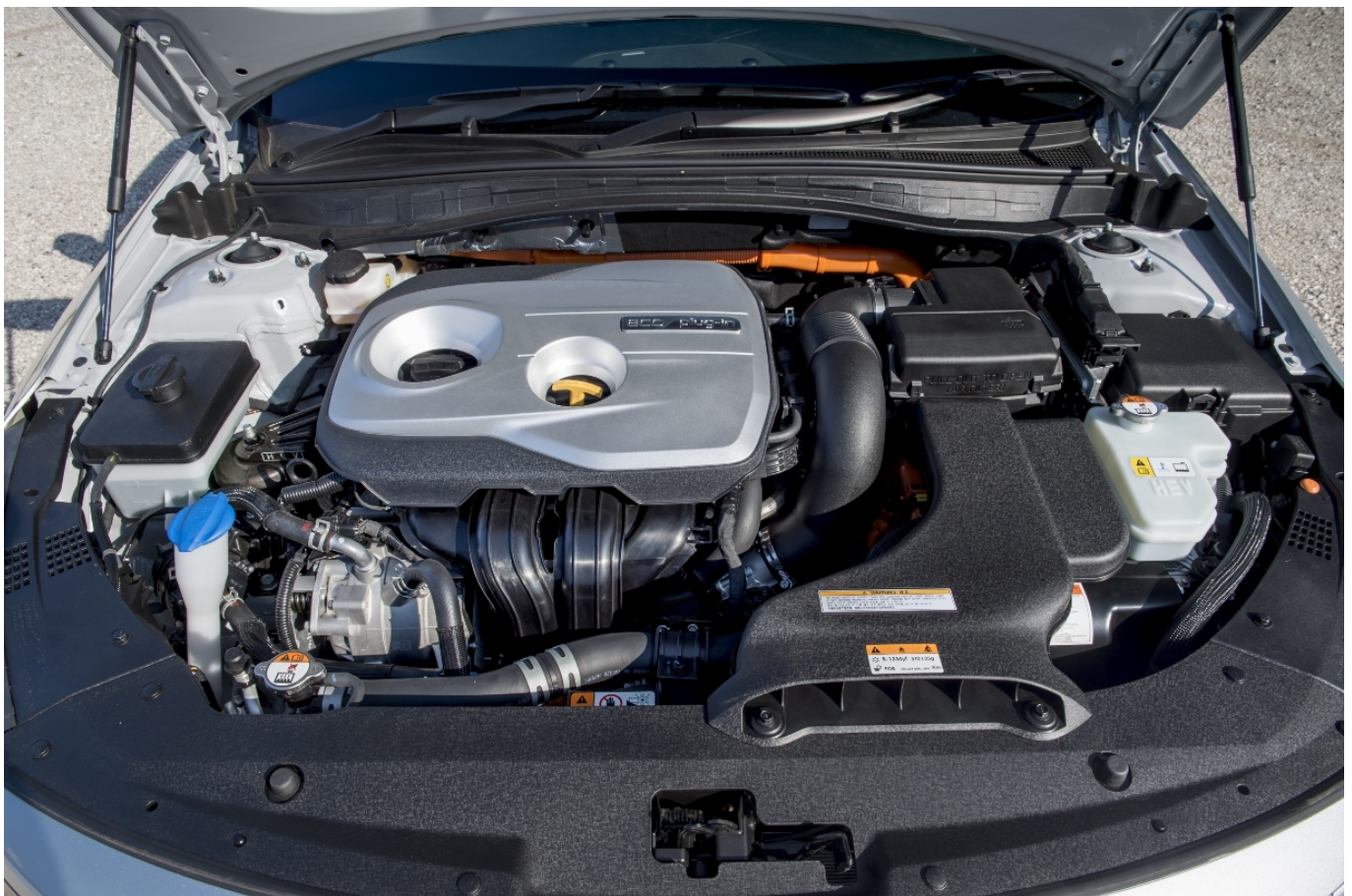
So despite its higher price and slightly higher insurance group rating the PHEV version of the Optima saloon makes very good sense for company cars users, in particular for personal tax savings, whilst retail customers will make road tax savings as well. After April the





advantage of PHEV technology will still apply in terms of BIK tax but less so for VED road tax.

Those figures might need some digesting but the headline fuel economy figures are potentially easier to understand if not totally realistic. First of all the technical spec needs explaining. The Optima PHEV combines a 154 bhp 2.0 litre direct injection normally-aspirated petrol engine with a 50 kW (67 bhp) electric motor and a 9.8 kW lithium-ion battery pack. The electric motor replaces the torque converter in the smooth six-speed automatic transmission. Working together the engine and electric motor produce 202 bhp and 375 Nm (277 lb.ft) of torque. Top speed is 121 mph and in pure-electric mode it can be driven at speeds as high as 75 mph. The zero to 60 mph acceleration time is 9.1 seconds.





Officially the Optima PHEV saloon will drive up to 33 miles in all-electric mode and officially under the laboratory NEDC combined test cycle will return 176.6 mpg. It can be fully charged from a 240 volt/13 amp home power source in under four hours, or faster at public electric charging points. In my week long test with a fully charged battery and a full tank of petrol the computer showed a total driving range of 523 miles which does away with the range anxiety of pure electric cars.

Driven all the time in ECO mode I let the intelligent computer-controlled hybrid system do its own thing. On my first outing covering 20 miles to my nearest large town, via some country roads, the car's computer showed exactly 100 mpg. Continuing on a longer journey of 120 miles using motorways, dual carriageway, country roads and some stop-start driving in queues of traffic, the battery power was more or less used up and 55.5 mpg was the figure. PHEVs work best away from motorways where the regenerative harvesting of power to top up the battery is limited. Acceleration, de-acceleration and going up and down hills on winding country roads, plus braking for in-town traffic lights, works best.

After more mileage overall the Optima PHEV, for the first 280 miles of driving with one electric charge, returned 49.2mpg, about the same as I would expect to get from the diesel models - but remember the CO<sub>2</sub> and NO<sub>x</sub> emissions are much lower. After a second electric charge and another 80 miles of non-motorway driving the figure climbed back to an overall average for the week of 52.1 mpg and the car still had half a tank of petrol from its initial fill-up, which according to my maths exceeded the initial computer read-out of a 523 mile range.

To get the best from PHEVs in terms of fuel economy the mains charging system must be used but I know company car drivers are more interested in what the official tax gathering paperwork says in terms of CO<sub>2</sub> figures which determine their tax costs. So they don't always bother to charge the vehicle from the mains, they just choose to use the petrol engine and any electric power generated under braking.

The Optima PHEV has a comprehensive list of equipment including 17 inch alloy wheels



which run on non low profile tyres so despite the uprated suspension, used to support the extra weight of the hybrid system, the ride comfort is good. It has LED daytime running lights and headlights, black cloth and faux leather seats, electrically operated front seats, 8.0-inch touchscreen with sat-nav, 10-speaker sound system, front and rear parking sensors, a reversing camera, dual-zone air-con, steering wheel mounted controls, a neat fascia panel with clear to use controls, electric windows and door mirrors, cruise control, remote control locking, push-button start, connected services, electronic parking brake and a wireless phone charger.

This slideshow requires JavaScript.

In addition to the uprated suspension the brakes are also of larger diameter to offset the car's greater weight. I wish Kia had included an adjustable regenerative force harvesting system as used on some other PHEVs like the top selling Mitsubishi Outlander PHEV. Choosing a stronger recharging setting does away in many instances with the need for braking with the generator slowing down the vehicle on the overrun or going down steep hills. This would extend the electric/hybrid driving range even more.

## VERDICT

All this technology and specification is wrapped up in a strong and relatively roomy bodysell which looks thoroughly modern and upmarket. It has low-drag front and rear bumpers, an active air-flap grille, a blue tint to the headlights, blue trim on the lower front air intake, upper grille and side sills, all to show off its cleaner running credentials. The side view retains the four door coupé profile, with better than average rear seat legroom in this class. With the packaging of the battery in the rear seat backs and under the boot floor there are 307 litres (10.84 cu.ft) of luggage space, that's 203 litres (7.17 cu.ft) less than the diesel Optima saloon. This makes the diesel models more practical and less expensive to buy but significantly more expensive to run in terms of tax costs. The Kia Optima PHEV Saloon is definitely less taxing to own and easy to drive.

For: Comfortable, tax efficient, low emissions, high spec, roomy, good kerb appeal, long





warranty.

Against: Lacks the driving dynamics and agility of say a BMW 3-Series hybrid, smaller boot than the diesel versions, not enough electric harvesting force during braking or on the overrun to increase the driving range of the EV/hybrid modes, real-life fuel economy doesn't get close to the official figures.





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

### Kia Optima PHEV auto 4-door saloon.

Price: £33,995 (less £2,500 Government plug-in vehicle grant).

Engine/transmission: 2.0 litre, four cylinder normally-aspirated petrol plus an electric motor, 202 bhp, 375 Nm (277 lb.ft) of torque, six-speed auto, front wheel drive.

#### Performance:

0-60mph: 9.1 seconds.

Top speed: 121 mph.

Fuel consumption: Combined Cycle 176.6 mpg, (52.1 mpg overall on test), electric power only driving range 33 miles.

Emissions and taxation: CO2 37 g/km, VED £0, BIK company car tax 7%.

Insurance Group: 25A.

Warranty: 7 years/100,000 miles.

Dimensions/capacities: L 4,855 mm (15.93 ft), W 1,860 mm (6.10 ft), H 1,465 mm (4.81 ft), boot space 307 litres (10.84 cu.ft), four doors/five seats.