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BMW X5 xDrive 40e First Impressions

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new BMW X5 xDrive 40e joins the UK's fast growing plug-in hybrid market
(by David Miles, Motor Editor, New Agency)

With a range of 31 miles, the X5 xDrive 40e is the most powerful plug-in hybrid
selling new car in the UK. In fact, it's the only car in the front of them in 2016, BMW look fully

charged to have a good year.

First of their new models to be handed to the UK's motoring media at the start of their centenary year was BMW's first plug-in hybrid (PHEV) production car – the X5 xDrive 40e which is priced from £52,105 for the SE and £56,705 for the MSport version. Both have BMW's intelligent AWD xDrive system. These prices are just £215 more than the equivalent X5 xDrive 40d turbodiesel variants.



What about BMW's i3 and i8 plug-in low emission models I hear you cry? BMW's answer was "These are from our sub 'i' brand - the X5 PHEV is from our core BMW brand." Fully committed to the future of PHEVs, more BMW plug-in petrol electric hybrid models will follow this year for the 2 Series Active Tourer, 3 Series and 7 Series ranges.

The X5 xDrive 40e, or PHEV, is a large luxury 4x4 built for global markets alongside BMW's conventional petrol and diesel powered X5 and X6 models at the brand's Spartanburg plant in South Carolina, USA. BMW expects to sell around 1,000 units of the X5 PHEV in the UK this year which equates to around 15% of all X5 SUV sales in this country.

The new X5 xDrive 40e might be destined for global greatness but for the UK market where PHEVs are the flavour of the month, it misses out in some important areas - areas which have fed the demand for such similar vehicles.

With its twin-turbo 2.0 litre, 245 hp petrol engine working with an electric motor to give a total system of power output of 313 hp and 450 Nm of torque, the CO2 emissions are 77 and 78 g/km depending on the specification. This fact alone means that the vehicle is not eligible for the UK Government's current £5k plug-in vehicle grant (this reduces from 1 March to £2,500) and the X5 PHEV doesn't meet the lower emissions to be exempt from the London Congestion Charge. Even worse in the UK market where company car/fleet users are the main customers for PHEVs, the Benefit-in-Kind tax rate for the X5 PHEV is currently 13%, not the 5% enjoyed by drivers of similar PHEV hybrid models. Things do not improve from 1 April this year when each of these Benefit-in-Kind tax rates go up by 2%. Currently all PHEVs carry no VED road tax costs but that could also change from April once new rates and revised band levels are predicted to be announced in the next Budget.

Another downside of the X5 PHEV is the official Combined Cycle fuel economy figure of 85.6 mpg for the SE or 83.1 mpg for the MSport. It looks good but bear in mind that others in this PHEV SUV sector are quoting official figures of well over 100 mpg. Models like the sales leading Mitsubishi Outlander PHEV 4x4, the soon to arrive Volvo XC90 PHEV Twin-Motor and the Audi Q7 e-tron, all have lower CO2 emission figures to reap the benefit of



reduced personal tax costs, freedom from the London Congestion Charge and potential better real-life fuel economy.

The BMW X5 PHEV has a 15% BIK company car tax rate from April which will see 40% tax rated drivers paying £3,123 a year. This is against the 28% (£5,834) paid for the X5 40d turbodiesel, a saving of £2,711. Currently the X5 PHEV 40e variants also pay no road tax whilst the 40d is rated at £180, but these figures might change from April after the next Budget.

Technical Aspects



Getting to the nuts and bolts of the X5 xDrive 40e, better known as the X5 PHEV, the drive system comprises a four cylinder TwinPower turbo petrol engine and a synchronous electric motor integrated with the 8 speed Steptronic transmission. The lithium-ion high-voltage battery pack can be topped up with mains electricity from any standard domestic 240V power

socket, taking 3.5 hours (2.5-hours using BMW's i Wallbox), also at public charging stations.

The high-voltage battery, which also supplies power to the battery for the 12V electrical system via a voltage transformer, is housed underneath the luggage compartment floor. With a capacity of 500 - 1,720 litres (17.6 - 60.7 cu.ft), the luggage area is barely compromised compared with other X5s. The standard charging cable can also be stored in a hinged compartment under the luggage area floor. The X5 40e model has five seats with folding rear seats split 40-20-40 for optimum passenger or load carrying options.



BMW says short everyday journeys in urban areas can easily be completed with zero tailpipe emissions with a range of up to 19 miles using electric power only. Also during urban travel, using mostly battery power and a little support from the petrol engine, around 94 mpg can be obtained. On longer workday life journeys, when both engine and motor need to be deployed, the figure is 43 to 47 mpg and on long journeys the consumption is around 26 mpg.



Drive Time

During my short test drive around the busy stop/start commuter routes near Farnborough, plus some rural Hampshire traffic free B-roads, the 40e MSport version, which had its battery almost fully charged at the start, returned 32.8mpg. This is a figure I'm sure the X5 40d turbodiesel version would have at least equalled, but the saving in personal Benefit-in-Kind tax the X5 40e gives company executives will be most welcome.



The X5 40e is not at all complicated to drive – it just needs a little understanding on how PHEV technology works and how to get the best out of it. On the X5 PHEV the eDrive button on the centre console lets drivers tailor the powertrain according to their own preferences and situation. When the vehicle is first started the default AUTO eDrive setting is activated with both the engine and electric motor working efficiently together. The electric motor



alone is used for setting off with normal power requirements, while the petrol engine cuts in at around 44mph or when the driver wishes to accelerate briskly. The driver can also switch to the all-electric drive mode setting MAX eDrive where the vehicle is powered solely by the electric motor. This mode is designed for comfortable driving with zero local emissions and offers a maximum range of approximately 19 miles at a limited top speed of 75mph. The third mode available is the SAVE Battery setting which allows the driver to conserve or build up the high-voltage battery's reserves for later on.

The X5 40e also features as standard the Driving Experience Control function from the conventional X5 models. This can be used to activate the vehicle set-up modes COMFORT, SPORT and ECO PRO, which each have the effect of altering the throttle mapping, the steering characteristics, the responses of the 8 speed Steptronic transmission as well as the Dynamic Damper Control settings.

How does it perform? In reality just like any other X5 and it is really a case of getting in, pushing the start button, selecting Drive, pressing the accelerator and off you silently go with the very quiet petrol engine coming to life when needed. The only hint of when the petrol unit is working is when I caught a glimpse of the rev-counter needle flicking into life.

VERDICT

With the exception of its electric power credentials and cleverly integrated electric/petrol drive system, as outlined above, the BMW X5 xDrive 40e is just like any other X5, that is to say beautifully built, high spec, easy to drive and desirable.

Its drawback is that it misses out on some valuable financial tax and Congestion Charge savings which most other PHEVs and their owners enjoy. It still looks like a serious oversight as to why BMW for the UK market didn't refine the emissions to get it to meet the 75g/km CO2 level which is a crucial figure for PHEV sales.

For: An important PHEV lower tax addition to the X5 range, to compete in the important fast growing new market sector, continues the well known driving refinement and high



specification of other X5 models.

Against: Crucially in this sector, due to its higher CO2 emissions than most other PHEVs, it misses out on even lower company car tax savings, and it's not free of London Congestion Charges.



MILESTONES AND WHEELS-ALIVE TECH. SPEC. IN BRIEF:

BMW X5 xDrive 40e MSport.

Propulsion: 2.0 litre, 4 cylinder, twin turbo petrol engine combined with an electric



motor.

Power and torque: 313 hp and 450 Nm (332 lb.ft) total output.

Transmission: 8 speed auto gearbox and permanent xDrive all wheel drive.

Performance:

0-62 mph: 6.8 seconds.

Top speed: 130 mph (restricted).

Economy: 85.6 mpg Combined Cycle (32.8 mpg on test).

Emissions and taxation: CO2 77 g/km for the SE and 78 g/km for the MSport, VED road tax £0, BIK company car tax now 13% (and 15% from April 2016).

Insurance group: 42E.

Warranty: 3 years/100,000 miles.

Dimensions/capacities: 5 doors/5 seats, L 4,886 mm (16.03 ft), W 1,938 mm (6.36 ft), H 1,762 mm (5.78 ft), boot/load space 500 to 1,720 litres ((17.6 - 60.7 cu.ft), braked towing weight 2,700 kg (5,952 lb).

Price: £56,705.