Power to the people? Electric now or not electric now, that is the question...

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ELECTRIC POWERED UK CAR SALES ARE NOT YET ELECTRIFYING!

David Miles (Miles Better News Agency) reports.

VW e-Golf, MG ZS EV and Nissan LEAF briefly tried

News

So far this year (8-months) official figures show that UK sales of BEV cars (Battery Electric Vehicles) have risen by 93.1% over the same period last year to 17,393 registrations. But before we think the motoring world has really changed that is still only 1.1% of all new cars sold. PHEV plug-in hybrids, think Mitsubishi Outlander, have sold just 17,594 units – a fall of 37% since the Government took away the £3,500 Plug-in Vehicle Grant but Hybrid Electric Vehicles, think Toyota Prius, have sold 60,989 units – a rise of 20.2%.

So what do these figures tell us? Demand is growing for pure electric cars but appeal in proportion to conventional cars is still low. Plug-in hybrids have lost their appeal because they are no longer price subsidised and hybrid models with petrol/electric drivetrains are still the most popular choice as they are self-charging so there is no range anxiety, we can go on any journey without worrying that we can find a public charging point and they are cheaper to buy and less expensive to run than conventional cars of a similar size.

But change has to take place as the current Government is committed to phasing out new petrol and diesel models by 2040 and with manufacturers bringing new pure electric models to market and upgrading current versions to improve the driving range so sales will improve. The move by local authorities establishing clean air and zero emission zones in our towns and cities will also drive up demand for electric powered vehicles, cars and CVs.

A big boost for electric vehicle sales will come next year when we are supposed to have a new integrated public charging system with more outlets and these will have the facility to use a more convenient payment system using conventional chip and pin cards rather than the hit-and-miss mobile phone App convoluted system we have now. Another big boost for pure electric vehicle sales from April next year will be that company car drivers will pay 0% Benefit-in-Kind tax and that will increase by 1% each year after that. However if we get a change in Government because of a General Election who knows what will actually be the situation.

We Motoring Journalists, just the same as the public, suffer all the issues and inconveniences that the public do if we want to test pure electric vehicles. Yes some can be

charged from a 13amp household electric socket, but not some higher powered battery ones because they draw too much power. And of course if we live in the countryside finding public charging points at a convenient time or location are big issues.

So when the motor industry arranges Media test driving days that is our opportunity to ‘go-electric’ – once we get to the venue of course; more likely arriving in a conventionally powered car.

VW e-Golf



Very recently Volkswagen UK held such a driving day for their new Passat range but they also made available their latest e-Golf pure electric five door hatchback for us to try.

This is the last roll of the dice for the e-Golf because when the next generation Golf range arrives next year there will be no ‘e’ version, just petrol, diesel and hybrid models. Now this might seem a retrograde step but VW will launch next year a totally independent ID range of models which are purpose-built pure electric cars with an all-new platform and body architecture to accommodate the battery pack and electric components. The first will be the ID.3 – the replacement for the e-Golf.

The substantially updated final edition of the VW e-Golf delivers greater performance and more technology than ever before. It is available as a single five door hatchback model

priced at £30,340 after the £3,500 electric subsidy grant has been included. Out of a total 66,710 Golfs sold in the UK last year, 980 were e-Golf versions.

At the heart of the latest e-Golf is a new higher output lithium-ion battery. The energy capacity has been increased from 24.2kWh to 35.8kWh and that helps the vehicle deliver a range up to 50% longer than before. It's now 143 miles using the new official WLTP test figure or up to 186 miles using the older NEDC test procedure. Of course CO2 emissions at the tailpipe are zero so VED road tax is currently £0 every year and it's free of the London Congestion Charge. Company car drivers pay 16% Benefit-in-Kind tax. Insurance is Group 26E and warranty is the usual ungenerous VW three years/60,000 miles but the battery pack is covered for eight years/99,360 miles.



The electric motor drives the front wheels and now develops 100kW (136 hp), which is 15kW (20 hp) more power than the previous model. At the same time, the maximum torque of the electric motor has been boosted from 270 Nm (199 lb.ft) to 290 Nm (214 lb.ft).



The battery can be charged to 80% capacity within 45 minutes at a DC CCS charging station (40kW). When charged overnight or during the work day from a wallbox (AC, 7.2kW), the battery is ready to go again with 100% capacity in less than six hours. The e-Golf can also be charged in around 17 hours via a standard, domestic three-pin UK plug (AC, 2.3kW).

Not only does e-Golf's uprated pure electric drivetrain deliver a longer range, it also

provides stronger performance. The acceleration from 0–62 mph takes 9.6 seconds compared to 10.4 seconds with the previous model. Top speed is now 93 mph – up from 87 mph.

The e-Golf's range can also be influenced by regenerative braking. There are five modes: D, D1, D2, D3 and B. In D, the vehicle coasts without regenerative braking when the accelerator is lifted. In each other mode, lifting off the accelerator pedal provides greater regenerative braking. In D2, D3 and B, the brake lights are activated when the driver's foot is lifted from the accelerator pedal, provided that a predetermined level of deceleration is achieved.

Just as with any model, even an electric one, customers still want a good level of specification and the e-Golf doesn't disappoint. It has full LED headlights to standard Active Info Display and top-of-the-range gesture-controlled Discover Navigation Pro infotainment system. As with the previous model, the new e-Golf comes with e-Remote online services that allow owners to control starting/stopping battery charging and auxiliary air conditioning.

Also included are 2Zone climate control, front and rear parking sensors, e-specific alloy wheels and Discover Navigation Pro satellite navigation with colour touchscreen and gesture control. In terms of safety equipment it has the latest generation Front Assist and Adaptive Cruise Control (ACC), Traffic Jam Assist and Emergency Assist all fitted as standard.



My very brief test drive showed just how easy pure electric cars are to drive. It's just push the start button, engage drive and press the accelerator, its two-pedal driving at its easiest. The performance doesn't disappoint either as the electric motor delivers instant torque so the initial acceleration is swift; it's also very smooth at lower stop-start speeds. My short distance 20 mile test drive, so as to save electric power for my fellow colleagues, the read-out said 4.0 miles/kWh which I assume would have given me a brisk country roads driving range of 143.2 miles, right on target for the official WLTP figure.

VERDICT

There is nothing else to say really. The VW Golf range overall is hugely popular, it is currently the UK's second best-selling car after the Ford Fiesta. The e-Golf for those who have or can live with finding suitable charging points and are willing to take time for the

battery to be replenished, at least have an alternative to emission emitting petrol and diesel powered models and of course the zero VED costs and low company car tax are also plus-points. It’s a doddle to drive but for the likes of some of us who cover long journeys where finding suitable charging points is difficult, it’s not a doddle to own one – yet.

MG ZS EV Compact SUV



Whilst the strength of the Volkswagen Group of brands are offering a wide range of current pure-electric models with many more on their way, one of the minnows of the car industry is the Chinese owned MG brand who are still doing very nicely with their affordable but small range of cars. But that is improving quickly because their new MG ZS EV (all electric) compact SUV launched in July has gone down really well.

The brand announced last week that it has sold 2,000 of these new all-electric affordable models in just two months. To boost sales even further MG have just introduced an

impressive new pricing offer for the next 1,000 customers where they will more or less match the Government's £3,500 Plug-in grant.

With the additional MG grant of £3,500 for the range-topping ZS EV Exclusive on top of the Government's own £3,500 plug-in car grant, customers benefit from a generous overall price from just £23,495. The slightly lower specification ZS EV Excite benefits from a new £3,000 MG grant which, when paired with the government grant, results in an overall price from just £21,995. Both versions have a WLTP Combined Cycle driving range of 163 miles and my short test drive around the winding Hampshire country roads returned almost the same as the official figure.

Of course with no emissions VED road tax is free and Benefit-in-Kind company car tax is 16%. At the recent Society of Motor Manufacturers media test driving event attended by the majority of motor manufacturer still only a few of them brought electric vehicles. One who did was MG so I stepped into their very new ZS EV compact SUV for a short spin around the winding but traffic busy country roads of Hampshire.



Again like the e-Golf this was easy driving, push the start button, use a rotary dial to move from Neutral to Drive or Reverse gears, press the accelerator and off you go, quietly, smoothly with instant torque and power swiftly available.

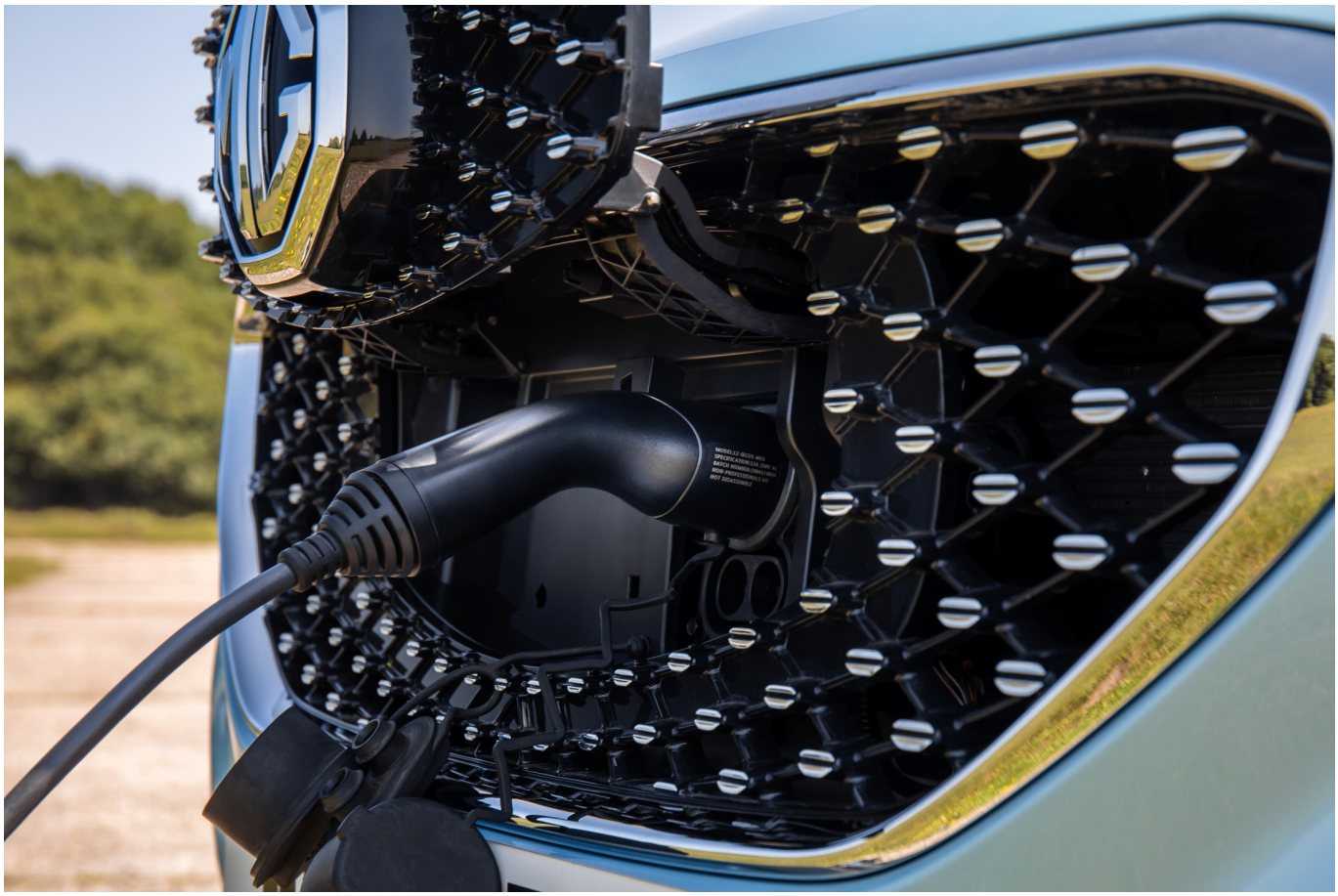
The MG ZS EV features a water-cooled 44.5kWh lithium-ion battery pack, fed to a front-mounted electric motor which delivers 105kW/143 hp of power and 353 Nm (260 lb.ft) of instant torque. Water-cooling manages the battery temperature, allowing frequent rapid charging and optimum range whatever the weather. MG packages the battery pack underneath the car, meaning there’s no compromise in cabin or storage space. This also results in a low centre of gravity making the vehicle relatively agile in its handling.



To maximise driving range performance it has three driving modes, Eco to Sport and three levels of regenerative braking MG calls KERS which can be selected going from slight through to very powerful depending on road and traffic conditions. With KERS set in its strongest setting it is very easy to not use the brakes in normal town or country driving conditions. Take your foot off the accelerator and the car rapidly slows down to a stop if needed. Top speed is a modest 87 mph but the zero to 62 mph is impressive at 8.5 seconds.

Charging is via the combined CCS and Type 2 port mounted within the front grille for easy access from either side of the car. The CCS plug is an enhanced version of the Type 2 plug, with two additional power contacts for the purposes of quick charging and supports AC and DC charging power. Featuring rapid charging capability, ZS EV can charge from 0–80% in

just 40 minutes from a 50kW charging station. At home it can recharge on a standard 7kW home charger in six hours and the car can also be charged via a standard 3-pin plug in around 18 hours. The vehicle is covered, including the battery, by MG's 7 years/80,000 mile warranty.



VERDICT

The specification is good for the price, the compact SUV styling is right on target with what the public are buying, the interior look and layout acceptable but the quality of some of the plastic trim is more budget than ideal. But for the price it's currently a very competitive and affordable way to join the move to electric motoring.

Nissan LEAF e+

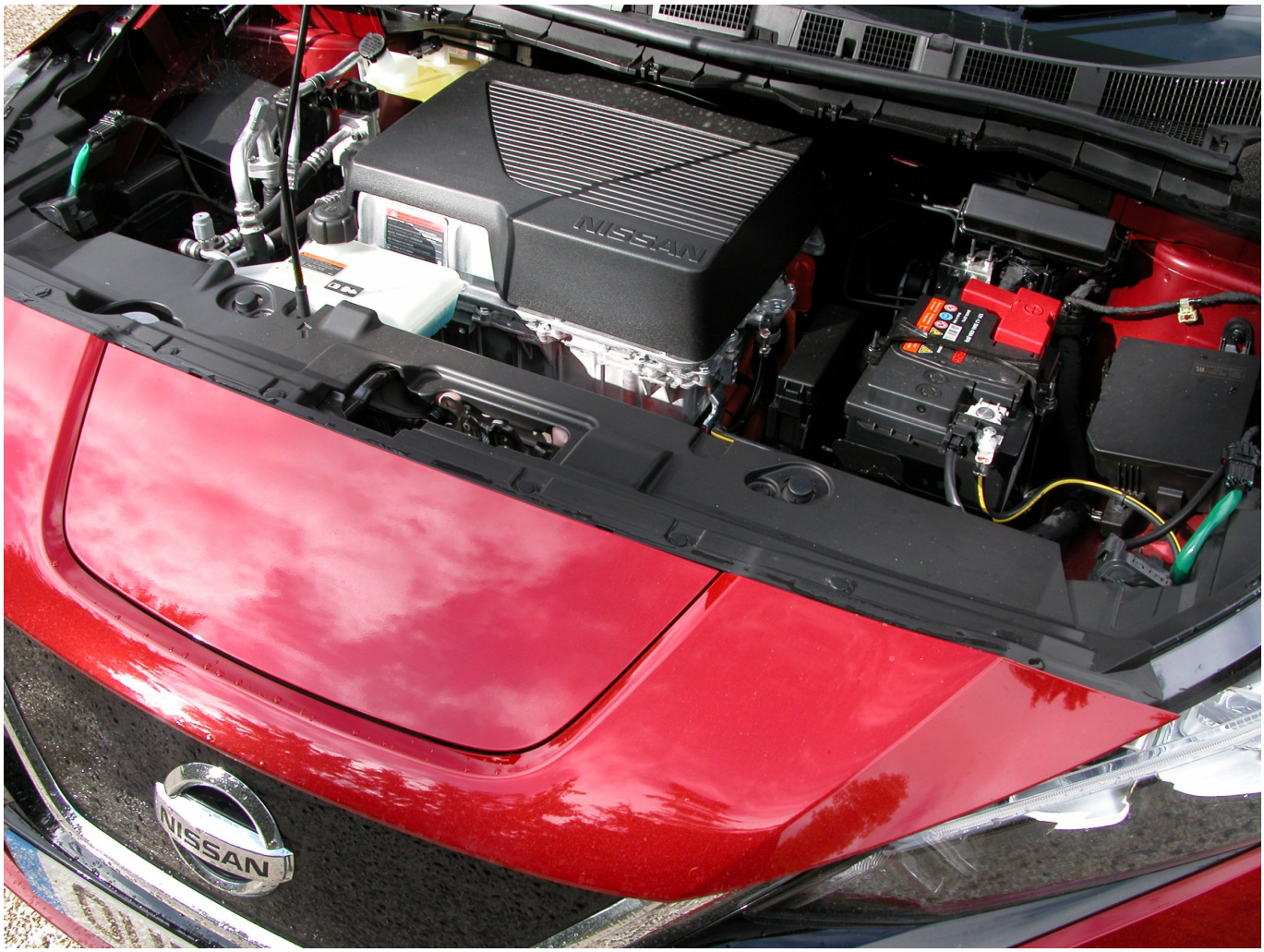


Unlike the VW Golf and MG ZS ranges which offer conventional combustion engines as well as pure electric power, the Nissan LEAF range are all electric models with various levels of specification but now with two levels of electric power. These are the 148 bhp 40kWh combination and the longer range LEAF e+ 217 bhp and 62kWh units. The latter was introduced in June this year with the new LEAF range first introduced earlier this year. The first generation models appeared in 2010.

To date over 400,000 LEAFs have been sold globally and in the UK 5,403 were sold last year. Nissan says the LEAF is World's best-selling electric car and it is the UK's best-selling electric vehicle as well. LEAFs are built in the UK, the USA and Japan.

Prices range from £27,995 for the Acenta 40kWh up to £35,895 for the LEAF e+ Tekna

62kWh model I tried at the recent SMMT media industry test day. These prices include the Government's Plug-In Grant of £3,500. All versions are mid-sized five door hatchbacks with an overall length of 4,490 mm (14.73 ft) with five seats and a boot/load space of 420 to 1,161 litres (14.83 to 41.00 cu.ft). Warranty is three years/60,000 miles and eight years/100,000 miles for the battery.



The performance of the new 62kWh model is 98 mph with a zero to 62 mph acceleration time of a swift 7.3 seconds thanks to its copious 340 Nm (251 lb.ft) of torque available from standstill. With zero emissions like the other two models tested VED road tax is zero cost and Benefit-in-Kind company car tax is 16%. The WLTP Combined Cycle driving range is up to 239 miles and my test drive around the winding Hampshire country roads showed a

figure of 3.2 miles/kWh which equates to a range of 198.4 miles.

Charging times vary of course depending on the power source. A 50kW fast charger will charge more or less fully in under an hour, a domestic wallbox can be done overnight but up to 32 hours for this higher capacity LEAF e+ charging via a domestic 13 amp socket.



Spec wise all LEAF models come as standard with Nissan Connect infotainment system with an 8-inch touchscreen with Apple CarPlay and Android Auto, TomTom Live navigation, air-con, electric windows and most other items you would expect to find in a conventional family hatchback. The LEAF e+ models also have the new ProPILOT advanced driving assistance functions which include adaptive cruise control, lane assist and traffic jam assist which can control the car at low speeds in slow-moving traffic.

Driving again is easy, push the start button, use a joystick style gear selector for Neutral,

Drive and Reverse, push the accelerator and you are underway without fuss. There is an additional e-Pedal switch which has to be used to engage the very strong acting regenerative braking energy capture system. But the default setting is always off so each time you start the car it needs to be reset although there is a milder amount of 'regen' without switching it on.



VERDICT

It is easy to see why the LEAF has been hugely popular but there are more and more new models joining the electric car market, so as good as it is in its latest form, it is no longer the clear leader. New competitors include the highly rated SUV styled Kia e-Niro and Hyundai Kona Electric models which both have longer driving ranges for a shade less money. Both of these South Korean brands are also bringing hydrogen fuel-cell passenger

vehicles to market but of course the hydrogen supply infrastructure is not remotely viable at this stage.