INTRODUCING THE NEW RANGE ROVER: ELECTRIFIED, SUSTAINABLE LUXURY AND TRADEMARK PERFORMANCE

- **Comprehensive choice:** Advanced 48-volt mild-hybrid Ingenium petrol and diesel engines are joined by efficient new six-cylinder Extended Range plug-in hybrids and a new V8 petrol
- **Extended-Range:** New plug-in hybrids produce 374 kW/510 pk and 323 kW/440 pk, and deliver a hushed EV driving range of up to 100km with CO_2 emissions lower than 30g/km[1]
- **Uncompromised electrification:** Plug-in hybrid's large 38.2kWh battery – useable capacity of 31.8kWh – is mounted under-floor for uncompromised load space and all-terrain capability
- **Fast charge:** The PHEVs are capable of 0-80 per cent charge in under an hour using 50kW DC rapid charging, making the New Range Rover one of the fastest-charging plug-in hybrids[2]
- **Sustainable luxury:** A fully electric powertrain will join the line-up in 2024, spearheading Land Rover's drive towards an electric future
- **Serene performance:** New 390 kW/530 pk twin turbo V8 petrol delivers 0-100 km/h in as little as 4.6s with Dynamic Launch engaged for trademark Range Rover V8 performance

Effortless performance and peerless refinement across any terrain and in all conditions have been cornerstones of the Range Rover driving experience for over five decades. The New Range Rover maintains this compelling combination with a comprehensive line-up of advanced powertrains that bring new levels of efficiency and capability to Land Rover's flagship SUV.

Electrification delivers the ultimate impression of refinement and luxury by providing hushed, instantly available power. Spearheading Land Rover's Reimagine strategy, a pure-electric Range Rover will join the family in 2024, providing permanent zero-emissions driving for the first time.

The New Range Rover provides electrified performance, with new Extended-Range plug-in hybrid electric vehicle (PHEV) powertrains and the latest mild-hybrid (MHEV) technology, while a new petrol flagship – the P530 twin turbo V8 – delivers trademark refinement and performance.

Nick Miller, Range Rover Product Chief, Jaguar Land Rover, said: *"The New Range Rover is available with a choice of powerful, efficient and electrified six-cylinder Ingenium petrol and diesel engines. The new Extended-Range plug-in hybrids represent the culmination of all our learning and experience of electrification, while the new twin turbo V8 provides a traditional take on luxury SUV refinement and performance. Ultimately, New Range Rover will also become the first all-electric Land Rover as we deliver the vision laid out in our Reimagine strategy."*

POWERTRAIN

The full engine line includes the following:

Plug-in Hybrid Electric Vehicle

P440e, 3.0-litre six-cylinder, PHEV, 620Nm of torque at 1,500-5,000rpm

P510e, 3.0-litre six-cylinder, PHEV, 700Nm of torque at 1,500-5,000rpm

Petrol

P400, 294 kW/400 pk 3.0-litre six-cylinder, MHEV, 550Nm of torque at 2,000-5,000rpm

P530, 390 kW/530 pk 4.4-litre V8, 750Nm of torque at 1,800-4,600rpm

Diesel

D250, 184 kW/249 pk 3.0-litre six-cylinder, MHEV, 600Nm of torque at 1,250-2,250rpm

D300, 221 kW/300 pk 3.0-litre six-cylinder, MHEV, 650Nm of torque at 1,500-2,500rpm

D350, 258 kW/350 pk 3.0-litre six-cylinder, MHEV, 700Nm of torque at 1,500-3,000rpm

Extended-Range six-cylinder plug-in hybrid power

The new Extended-Range PHEV powertrains combine the inherent refinement of Land Rover's in-line 3.0-litre six-cylinder Ingenium petrol engine with a 38.2kWh lithium-ion battery – with 31.8kWh usable battery capacity – and a 105kW electric motor integrated with the transmission. This combination provides a WLTP electric vehicle (EV) range (for comparison purposes) of up to 100km, delivering an expected real-world range up to 80km and overall CO_2 emissions lower than 30g/km[1].

Together, the straight-six Ingenium engine and electric motor combine with New Range Rover's hallmark qualities to bring new levels of refinement to the luxury SUV, providing a compelling balance of performance, refinement and assured driving dynamics. In this way the New Range Rover can be operated as a fully electric vehicle when customers want, and as a conventional ICE when they need.

POWERTRAIN

The powerful P510e combines a 400PS (294kW) Ingenium engine with the 105kW electric motor for a combined maximum power output of 374 kW/510 pk and 700Nm of torque, and accelerates from 0-100km/h in 5.6s. Efficiency is outstanding, providing CO_2 emissions lower than 30g/km[1].

In EV mode, the state-of-the-art plug-in hybrids can drive at speeds of up to 140km/h. This combination of range and performance will allow customers to enjoy Land Rover's flagship as an EV-only model for most journeys in town and country – according to Range Rover UK customer data, customers will be able to complete 75 per cent of their daily journeys in EV mode, without needing to charge away from home[2].

New Range Rover is one of the few PHEVs to offer 50kW DC rapid charging capability. It can charge up to 80 per cent in under an hour, making it one of the fastest charging plug-in hybrids[2]. For added convenience, charging the battery at home using a domestic 7.2kW AC wall box supply will allow customers to achieve a full charge in five hours[2]. Brake Energy Regeneration also harvests energy that would be lost when the driver lifts off the accelerator or brakes, with the motor acting as a generator to replenish the battery.

Customers can choose how to use the energy by selecting one of three driving modes:

- **HYBRID MODE** – the default driving mode uses Predictive Energy Optimisation to seamlessly optimise efficiency for every journey. Geo-fencing technology uses navigation and location data through eHorizon to automatically preserve and prioritise EV mode – for example where routes include roads within a low-emissions zone – while the system will intelligently preserve enough battery capacity to prioritise EV mode for the last 6km of journeys in urban areas, ensuring a smooth arrival.
- **EV MODE** – uses purely electric power for silent zero tailpipe emission driving.
- **SAVE MODE** – preserves the battery charge level to be deployed at a later point in the journey. Customers can choose the precise state of charge they wish to retain using the Pivi Pro touchscreen.

The Extended-Range PHEVs operate as battery-electric vehicles for most trips but can call upon the six-cylinder Ingenium petrol whenever longer trips are required, increasing the expected real world combined range to around 400 miles[1]. The choice of Land Rover's six-cylinder Ingenium engine also optimises refinement and performance when operating as an ICE vehicle.

Land Rover's new MLA-Flex body architecture is designed to accommodate ICE, PHEV and BEV powertrains. The battery for the PHEV is located under the cabin floor, within the wheelbase of the vehicle, for improved driving dynamics and uncompromised luggage space. The PHEVs are even able to accommodate a full-sized spare wheel, if desired. The battery's location maintains a low centre of gravity so Range Rover's trademark ride comfort, refinement and capability – honed over 50 years – have been taken to a new level with the promise of hushed all-electric driving.

The battery casing has been engineered using high-strength Boron steel to withstand extreme 4x4 conditions, with the result that New Range Rover has the stiffest and strongest body structure of any Land Rover. The battery shield is even able to support the weight of the vehicle balanced on a single axle.

The new P510e will be available on Standard Wheelbase models only and provides a towing capacity of up to 2,500kg.

Connected convenience

The New Range Rover is always online and always connected, so owners can keep track of the charging status of the vehicle using Land Rover's Remote app[4]. Customers are also able to use the supplementary heater and air conditioning system fitted to PHEV models to precondition the cabin more effectively than ever.

The remote Cabin Pre-Conditioning function can be activated while charging[5] – without affecting the battery level – or by using the residual power within the battery. This ensures customers in cold or hot climates are greeted by a perfectly defrosted or air-conditioned cabin before every trip. Timed Charging allows customers to schedule battery top-ups when the vehicle is connected to a suitable charging device in one of three ways:

- **Immediate charging** – begins battery charging straight away
- **Low-Cost Hours Only** – allows customers to conveniently plug in when they arrive at a destination but only charge when energy costs are at their lowest – for example during low-tariff periods at night
- **Smart Charging** – ensures the vehicle is charged as efficiently as possible based on the planned departure time set by customers. The intelligent system will, in conjunction with the cabin preconditioning function, begin charging at the most cost-effective time available

The PHEVs are supplied with a Mode 3 charging cable suitable for AC charging at both domestic wall boxes and public charging points, with the charging port located on the rear side panel on the left-hand side of the vehicle.

New flagship V8 petrol engine

The New Range Rover is the first Land Rover to be powered by a new 390 kW/530 pk 4.4-litre V8 engine, which deploys two parallel twin-scroll turbos – one for each cylinder bank – to minimise turbo lag and optimise efficiency. The new engine produces 750Nm of torque and powers the New Range Rover from 0-100km/h in 4.6s with Dynamic Launch engaged, and to a top speed of 250km/h.

The new V8 has been calibrated to suit the requirements of the world's most luxurious and capable SUV and features a specially designed sump to ensure the New Range Rover can cope with 45 degrees of articulation in extreme off-road driving. A bespoke air intake design delivers a maximum wading depth of 900mm and strengthening ribs ensure the new V8 passes Land Rover's demanding kerb strike durability tests. A powerful starter motor and heated sump ensure the new engine meets Land Rover's cold-start requirements.

Twin-scroll turbos feature ceramic bearings, which contribute to immediate responses, while a water-cooler reduces intake air temperature more effectively than a standard air-based intercooler, improving both efficiency and peak power. Valvetronic variable intake lift delivers precise control over the combustion process throughout the rev range, and traditional steel cylinder liners are replaced by spray bore technology, which reduces weight and friction and enhances thermal efficiency.

Smooth and powerful Ingenium petrols

A smooth straight-six Ingenium petrol engine combines refinement, performance and efficiency, using the innovative technologies common across the Ingenium family. The advanced engine features MHEV technology, a conventional twin-scroll turbocharger and an advanced 48-volt electric supercharger, with a Belt-integrated Starter Generator in place of the alternator to assist the engine, and a 48-volt lithium-ion battery to store energy captured as the vehicle slows down.

The powerful P400 achieves 0-100km/h in 5.8s with fuel consumption of up to 9.5l/100km and CO_2 emissions as low as 215g/km[3].

Advanced and efficient diesels

Diesel power comes from a choice of powerful and efficient in-line six-cylinder D250, D300 or D350 Ingenium engines. The D250 delivers 600Nm of torque and powers New Range Rover from 0-100km/h in 8.3s, with fuel consumption of up to 7.6l/100km[3]. The more powerful D300 produces 221 kW/300 pk and 650Nm, contributing to 0-100km/h in 6.9s.

The most powerful diesel, the D350, produces 700Nm of torque and powers New Range Rover from 0-100km/h in 6.1s, with fuel economy of up to 7.6l/100km and CO_2 emissions from as low as 198g/km[3].

All six-cylinder diesels feature state-of-the-art 48-volt MHEV technology to harvest energy lost under deceleration and braking to boost fuel efficiency. A Belt-integrated Starter Generator ensures more responsive and refined operation of the stop-start system and provides extra assistance to the engine when accelerating. Together, this provides up to a five per cent uplift in efficiency compared to conventional stop-start systems.

In combination with the MHEV system, the new six-cylinder diesels also feature lightweight aluminium construction and a pair of close-coupled series sequentially arranged turbos. This maximises the heat delivered to the catalyst and reduces the time it takes to warm up, optimising efficiency. State-of-the-art low-friction steel pistons and 2,500bar piezo injection also contribute to improved efficiency, while variable nozzle turbo technology ensures 90 per cent of peak torque is delivered in just over a second at 2,000rpm.

Transmissions

All powertrains are driven through a smooth and responsive eight-speed ZF automatic gearbox and twin-speed transmission, which provide a set of low-range ratios essential for towing or off-road driving when more control is required.

ENDS

[1] *PHEV figures provided at launch are based on Manufacturer's Estimates in accordance with EU WLTP legislation for Standard Wheelbase five seat derivatives with a fully charged battery. For comparison purposes only. Real world figures may differ. CO2, fuel economy, energy consumption and range figures may vary according to factors such as driving styles, environmental conditions, load, wheel fitment, accessories fitted, actual route and battery condition. Range figures are based upon production vehicle over a standardised route.*

[2] *Manufacturer's Estimates. Actual charge times may vary according to environmental conditions and available charging installation. Assumes charging only at home and based on anonymised ownership data from Range Rover customer*

[3] *The figures provided are as a result of official manufacturer's tests in accordance with EU WLTP legislation for Standard Wheelbase five seat derivatives. For comparison purposes only. Real world figures may differ. CO2, fuel economy and energy consumption may vary according to factors such as driving styles, environmental conditions, load, wheel fitment, accessories fitted and actual route.*

[4] *Compatible smart phones only*

[5] *Remote Climate Control use subject to local Regulations*