

# Hybrid future planned for next-generation Kia Optima

- New Optima range will include Hybrid and Plug-in Hybrid models
- Optima PHEV to combine high-capacity batteries with 2.0-liter GDI engine, offering more electric range than any other PHEV sedan
- Targeting 10% greater fuel economy for new Optima Hybrid
- Kia aims to improve average fuel efficiency by 25% over 2014 by 2020

**(SEOUL)** November 16, 2015 – Kia Motors has today revealed details of a range of advanced new powertrains planned for the all-new Optima, as part of the company's ongoing commitment to broaden its global range of low-emission vehicles.

Innovative new hybrid powertrains will be a key feature of Kia's new D-segment sedan, which will offer both hybrid-electric and plug-in hybrid-electric power within the next 12 months.

A new addition to the Kia model line-up, the Optima Plug-in Hybrid (PHEV) will be Kia's first plug-in hybrid for global markets when it goes on sale in the second half of 2016, offering increased battery capacity and pure electric range. Meanwhile, the new Optima Hybrid (HEV) will offer buyers substantial improvements over the existing Optima Hybrid, with a larger battery pack, more powerful electric motor and revised transmission. These changes are expected to contribute to a 10% improvement in fuel economy over earlier versions of the Optima Hybrid.

The Optima HEV is expected to go on sale across the majority of Kia's global markets in the first half of 2016.

# Optima PHEV to offer great electric range

The next-generation Optima PHEV will feature a 9.8 kWh lithium-polymer battery back – roughly six times the energy output of that found in the current-generation Optima Hybrid. Paired with a 50 kW electric motor – itself 42% more powerful than in the previous Optima hybrid version – the combination allows the Optima PHEV to operate in pure-electric mode at higher speeds. Engineering teams working on the Kia Optima PHEV are expecting the car to go on sale with the ability to travel up to 27 miles on electric power alone, placing the Optima PHEV among the leaders in the D-segment for pure-electric range.



The innovative powertrain employs Kia's efficient 2.0-liter 'Nu' four-cylinder GDI (gasoline direct injection) engine at its core, expected to generate 156 ps and 189 Nm. The engine is coupled with the electric motor, which allows the car to operate in charge-sustaining mode (just like the current Optima Hybrid) once the battery runs out of charge. The powertrain's total power output is 205 ps at 6,000 rpm, with the application of the electric motor facilitating an immediate engine response to throttle inputs.

This power will be applied to the road through a smooth-shifting six-speed automatic gearbox and the transmission-mounted 50 kW electric motor, which replaces the traditional torque converter in non-hybrid Optima models. The Optima PHEV will offer a seamless blend of highly-efficient electric and internal combustion power, and a consistently high level of performance.

Based on internal tests carried out to date, the Optima PHEV is expected to deliver 99 MPGe combined (US), while engineers are targeting 40 mpg combined in charge-sustaining mode. Once plugged in, the PHEV will recharge in less than three hours at a 240V Level 2 charging station.

To ensure the PHEV will stand out among the Optima range, the car boasts a series of visual modifications. These include a charging port integrated into the driver-side front fender, chrome side sill moldings, new wheel designs and 'EcoPlug-In' badging. In the cabin, the PHEV model is equipped with a distinctive instrument cluster, which displays information about the car's functions and powertrain status, while a charge indicator on top of the dash allows drivers to easily see the state of charge from outside the vehicle (for instance, while it charges outside a home).

#### Improved fuel economy and packaging for new Optima Hybrid

Following the popularity of the first-generation Optima Hybrid, the next-generation model will once again feature the increasingly popular hybrid powertrain, boasting a range of updates to boost fuel economy by 10% and improve the model's packaging.

At the heart of the new Optima Hybrid is a 156 ps 2.0-liter 'Nu' GDI engine, coupled with a six-speed automatic transmission. The upgraded transmission houses a 38 kW electric motor and clutch to replace the traditional torque converter, delivering the same responsive and engaging driving characteristics that Optima Hybrid owners would expect. The combined power output of the Optima Hybrid's upgraded powertrain is 195 ps at 6,000 rpm. The transmission also uses a new electric oil pump, contributing to the increase in fuel economy.

Backing up the engine, transmission and motor is an upgraded lithium-polymer battery pack, with a capacity of 1.62 kWh – an increase of 13%. The battery pack now fits underneath the trunk floor, rather than infringing slightly on the cargo space available, resulting in a more practical loading area and enabling the use of 60/40 split-folding rear seats.

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### Visual and aerodynamic upgrades separate hybrid models from the pack

The Optima PHEV and HEV will offer their own distinct styling features to differentiate them from other models in the all-new Optima range. While the new Hybrid models boast the same modern styling which has proved so popular with buyers around the world, they each receive an active grille, engineered to balance improved aerodynamics with optimized engine bay cooling. A number of exterior elements – on the rear bumper, grille surround and wheel arches – feature silver brightwork and a clean metallic blue finish, as well as special 'EcoHybrid' and 'EcoPlugin' badging.

### High-class cabin, improved refinement and new technologies for all-new Optima

Beyond specific upgrades to the exterior and interior, both the all-new Optima PHEV and Optima HEV will continue to offer the same modern exterior styling, and a bold interior design with more space for all occupants.

Combined with an array of new technologies, and retaining the sporty image that has helped the Optima become one of Kia's best-selling models worldwide, the all-new Optima range offers greater refinement, improved ride and handling and higher quality over the outgoing model.

### Kia aims to improve average fuel efficiency by 25% by 2020

A popular model for Kia worldwide, the next-generation Optima will contribute to the brand's ambition to becoming a leader in the low emission vehicle market by 2020. In the next five years, Kia will expand its current green car line-up from the four current models to 11, and is targeting a 25% improvement to average corporate fuel efficiency over 2014 levels.

This expanded range of low-emissions vehicles will encompass a wide range of advanced powertrains, from hybrids and plug-in hybrids to battery-electric and hydrogen fuel cell electric vehicles. The Kia Optima PHEV's high capacity lithium-polymer battery pack and transmission-mounted electric motor will be re-engineered for use across other Kia vehicles in future, while the brand is set to launch an all-new hybrid model in 2016.

As well as investment in advanced propulsion technologies, Kia will also replace seven out of its 10 current engine ranges with next-generation gasoline and diesel units, while increasing the number of turbocharged engines. Higher-efficiency, multi-speed transmissions are also planned, while Kia engineers are targeting a 5% reduction in the average weight of new car bodies through greater application of ultra-high strength steel.

Editor's note: All technical data contained in this press release are expected targets, pending further development and homologation. All figures are subject to change.

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# **About Kia Motors Corporation**

Kia Motors Corporation (www.kia.com) – a maker of quality vehicles for the young-at-heart – was founded in 1944 and is Korea's oldest manufacturer of motor vehicles. Over 3 million Kia vehicles a year are produced in 10 manufacturing and assembly operations in five countries which are then sold and serviced through a network of distributors and dealers covering around 180 countries. Kia today has around 49,000 employees worldwide and annual revenues of nearly US\$45 billion. It is the major sponsor of the Australian Open and an official automotive partner of FIFA – the governing body of the FIFA World Cup™. Kia Motors Corporation's brand slogan – "The Power to Surprise" – represents the company's global commitment to surprise the world by providing exciting and inspiring experiences that go beyond expectations.

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