BMW GROUP

Corporate Communications

Media Information
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BMW Group Plant Landshut to produce key component for hydrogen drivetrain.

+++ Pre-series production of the "Energy Master" for the BMW iX5 Hydrogen begins at BMW Group Plant Landshut +++ Second production line for the battery-electric Energy Master goes into operation at the same time +++ Plant strengthens its role in battery-electric and hydrogen drivetrain technologies +++

Landshut. BMW Group Plant Landshut has started pre-series production of a key control unit for the BMW Group hydrogen drivetrain. The so-called "Energy Master" will in future be used in the new BMW iX5 Hydrogen. At the same time, the site is commissioning a second production line for the control unit used in the battery-electric vehicles of the Neue Klasse (BMW iX3 and BMW i3).

The Energy Master is the central control unit of the high-voltage system. In battery-electric vehicles, it is mounted on the high-voltage battery. In the BMW iX5 Hydrogen, a modified version performs a central control function within the drivetrain system and is installed on the BMW Hydrogen Flat Storage system. The control unit combines energy and data flows, manages the power supply for the e-machine and on-board electrical system, and ensures safe, intelligent operation of the overall system. This makes it the key interface between the fuel cell system, the innovative high-voltage battery and the electric drive machines.

Josef Hochreiter, Vice President Hydrogen Vehicles at the BMW Group: "Our ambition for the BMW iX5 Hydrogen is clear: a genuine BMW – with sheer driving pleasure. To achieve this, a perfectly coordinated overall system is crucial. The Energy Master is a key component in this: it intelligently controls the innovative high-voltage battery and, together with the third-generation fuel cell system, delivers assured driving dynamics."

The plant's expertise creates synergies between battery-electric and hydrogen-based drivetrain technologies.

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The close integration of electrical/electronics expertise and industrial series production makes the plant ideally suited to manufacture components for both technology paths. At the BMW Group, the development and production of the Energy Master are being carried out fully in-house for the first time.

Thomas Thym, Head of BMW Group Plant Landshut: "With the start of pre-series production of the hydrogen-specific Energy Master, we are reinforcing Plant Landshut's role as a centre of expertise for innovative drivetrain technologies. Here we combine development, manufacturing expertise and industrial scaling – for battery-electric vehicles as well as hydrogen fuel cells."

Landshut's role in electromobility

BMW Group Plant Landshut is home to two production areas for the Energy Master. For battery-electric vehicles (BEV), the highly complex control unit has already been in series production since last year – currently for the BMW iX3 and BMW i3 models of the Neue Klasse. With the commissioning of the second production line, capacity for this will almost double. At the same time, pre-series production of the hydrogen-specific Energy Master for the BMW iX5 Hydrogen is now beginning.

In addition, Landshut plays a central role in the BMW Group hydrogen drivetrain network: the media distribution plate and the fuel cell stack housing for the current pilot fleet of the BMW iX5 Hydrogen were already produced here and have since been further refined. The media distribution plate ensures the precise distribution of hydrogen and air within the fuel cell, while the stack housing structurally integrates and protects the cell stack.

The new BMW iX5 Hydrogen

For the BMW iX5 Hydrogen, which will be launched in 2028, the BMW Group is introducing a new hydrogen tank concept. The arrangement and size of the tanks enable a range of up to 750 kilometres*. The BMW Hydrogen Flat Storage system makes particularly efficient use of the available installation space and is compatible with the Gen6 high-voltage battery without taking up

interior space. This makes it possible to produce fuel cell models on the same production line as vehicles with other drive systems.

The BMW Hydrogen Flat Storage technology forms part of the drivetrain. Together with the fuel cell system and an innovative high-voltage battery, it delivers the brand-typical BMW driving pleasure. The latest generation of fuel cell technology (Gen3) will also be used; it is more compact, more efficient and more powerful than all previous generations and is being developed jointly by the BMW Group and Toyota Motor Corporation.

Series production of the fuel cell systems will begin from 2028 at BMW Group Plant Steyr; Landshut is firmly integrated as a technology and component location.

The BMW Hydrogen strategy
The BMW Group sees technological openness and a broad product portfolio as key success factors. By integrating fuel cell technology into the new BMW X5 series, the company is strategically expanding its series offering and making the advantages of hydrogen available to customers.

Hydrogen stands for electric driving with long range and fast refuelling, diversifies energy sources and reduces dependence on a single infrastructure or raw material supply chain.

Investment and funding strengthen Germany as an industrial location
Through the "HyPowerDrive" project the development of the powertrain and the tank system of the BMW iX5 Hydrogen is funded by the Federal Ministry of Transport (BMV) within the framework of the IPCEI Hy2Move. The federal government is providing funding of EUR 191 million. In addition, the project is (co-)financed by the state of Bavaria with a total of EUR 82 million. The funding is implemented by the Project Management Jülich (PtJ) and coordinated by NOW GmbH.

Since 2020, the BMW Group has invested a high three-digit million-euro sum in expanding electromobility and related key technologies at Plant Landshut.

CO2 emissions & consumption.
* As this is a prototype in the development phase, the statutory WLTP consumption data (and EPA) is not yet available.

If you have any questions, please contact:

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BMW Group Plant Landshut

Around 3,800 employees at BMW Group Plant Landshut produce engine, chassis and structural components made from light-alloy castings, electrical and electronic components, plastic components for vehicle exteriors, carbon body components, cockpit and interior equipment, engines and propeller shafts. Plant Landshut is the BMW Group's largest components plant worldwide and supplies all BMW Group vehicle and engine plants around the globe – and therefore virtually every vehicle from BMW, MINI, Rolls-Royce and BMW Motorrad. BMW Group Plant Landshut combines digitally enabled component production with a clear focus on sustainability and responsible resource use.

With forward-looking technologies, BMW Group Plant Landshut acts as a driver of innovation in the technological transformation of the automotive industry and its suppliers. At the plant's connected technology centre, specialists from a wide range of disciplines actively help shape the development of future vehicle generations. They are involved in the development processes of new vehicles at an early stage. In the Landshut region and in Lower Bavaria, BMW Group Plant Landshut is a socially committed, innovative and attractive employer.

www.bmw-werk-landshut.de