Joint press release of the Federal Ministry for the Environment, the Hessian Ministry for Economics, Energy, Transport and Housing, the Hessian road authority Hessen Mobil and other project partners.

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Electromobility
First eHighway on a German autobahn
Hesse opens test route for electric trucks with overhead line

Germany’s first test route for overhead line hybrid trucks (OH trucks) has been inaugurated on the A5 autobahn in the state of Hesse. The trucks are equipped with an electric motor, a diesel engine and batteries that can be quickly charged from overhead power lines. By mid-2020, the number of OH trucks traveling several times a day between Weiterstadt and Langen/Mörfelden will be increased to five. The Federal Ministry for the Environment has funded construction of the pilot project with €14.6 million. A further €15.3 million is available for conducting the field trials in Hesse that will run until the end of 2022. The Hessian road authority Hessen Mobil is coordinating the project and is responsible for the operation of the eHighway. The Technical University Darmstadt, Siemens Mobility GmbH and ENTEGA AG are also participating in the project. The five OH trucks will be operated by various shipping companies, and the first truck will be turned over to Spedition Schanz.

Rita Schwarzelühr-Sutter, Parliamentary State Secretary at the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU), commented: “Electrified overhead line trucks are a particularly efficient solution on the way to climate-neutral freight transport. We’ve tested the system for many years on private test routes. We’re now inaugurating practical tests on the A5 autobahn between Frankfurt and Darmstadt, and two
further test stretches will follow in the states of Schleswig-Holstein and Baden-Württemberg.” So far, the BMU has made over €70 million available for the development of the OH truck system. The technology is particularly interesting for truck transports that can’t be shifted to rail in the medium to long term.

"With this project, Hesse is underscoring its leading role in the transition to sustainable, climate-friendly mobility and signaling its willingness to try out new technologies for transportation,” said Jens Deutschendorf, State Secretary at the Hessian Ministry of Transport.

Gerd Riegelhuth, President of Hessen Mobil, explained: "The unique feature of this pilot test in Hesse is its integration of climate-friendly technologies into a cooperative automated transport network system. With this solution, future road transport will be more environmentally friendly, safer and more efficient.”

The technology works quite simply: The hybrid truck’s electric drive is powered from an overhead line via a pantograph. While the OH truck is connected to the overhead line, it operates with its electric motor and simultaneously charges its battery. Drawing on the energy stored in the battery, the OH truck can continue operating electrically and emission-free after leaving the overhead line on the autobahn. In case the battery is nearly depleted, the truck can continue its journey using its diesel engine. This hybrid system ensures the truck’s uninterrupted operation.

“Through a broad, interdisciplinary research approach, our university can clarify the numerous issues in this project that will come up in the deployment of a large-scale system,” said Prof. Manfred Boltze of the Institute for Transport Planning and Traffic Engineering (IVV) of the Technical University Darmstadt.

“The inauguration of Germany’s first eHighway in Hesse marks a milestone in the decarbonization of road freight transport in the country. The Siemens Mobility innovation combines the advantages of electrified rail lines with the flexibility of road freight transport, thus offering an efficient, economical and environmentally compatible alternative to truck transport with combustion engines,” said Roland Edel, Chief Technology Officer at Siemens Mobility GmbH.

“As a project partner, ENTEGA will work out energy-related and legal planning issues and develop a billing system concept. In addition, we will supervise the system’s evaluation from the point of view of power utilities and be available as a contact for all issues related to energy laws and regulatory matters,” stated Dr. Marie-Luise Wolff, CEO of ENTEGA AG.

*Further information*

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