



Press information

World premiere:

Volvo's first Electric Hybrid in commercial service in Hamburg, Germany

Volvo's new Electric Hybrid bus is for the first time placed in scheduled service. The bus will run on the Innovation Route 109 in Hamburg, Germany.

The new Volvo 7900 Electric Hybrid commenced scheduled operation in Hamburg on December 18. The starting shot for the innovative bus system coincided with the opening of the Innovation Route 109. The route will be used by the public transport company in Hamburg, the Hamburger Hochbahn AG (HOCHBAHN), to run comparative tests of innovative drive technologies under the strict everyday conditions of scheduled services. The city of Hamburg has established the target: from 2020, only emission-free buses should be acquired by the city.

Alongside three Volvo 7900 Electric Hybrid buses, Volvo's diesel hybrid buses in both 18 m articulated and 12 m versions will also be tested on the route, as well as battery fuel cell buses and fuel cell buses from other manufacturers.

The event in Hamburg took place in the presence of Olof Persson, President and CEO of the Volvo Group, Günter Elste, CEO of HOCHBAHN, Olaf Scholz, First Mayor of Hamburg, Rainer Bomba, State Secretary at the Federal Transport Ministry and some 120 guests from the fields of politics, economics and the bus industry.

"We are delighted that our new electric hybrid bus will serve the Innovation Route 109. For us, the electric hybrid bus represent the current peak of our successful cooperation with Hamburger Hochbahn AG", said Olof Persson.

"Together, we have reached our shared goal, making public transport more efficient,



quieter and more sustainable. We will continue our cooperation here in Hamburg with sustainable, low-noise vehicles.”

Future drive technologies tested on a single route

The Innovation Route 109 of HOCHBAHN will be almost exclusively served by buses with innovative drive technologies. Different types and drive modes for the sustainable buses of the future are to be tested in parallel and under identical conditions.

Conventional diesel buses will also be used on the route to serve as reference vehicles in the scientific comparison of the innovative drive concepts.

The Innovation Route 109 runs from the new Electric Bus Terminal near Hamburg Central Station to the final stop at the underground station in Alsterdorf. With a length of about ten kilometers, it's highly suitable for the Volvo Electric hybrid buses, with their groundbreaking plug-in technology that permits full electric operation over at least seven kilometers. Charging takes place at the two bus terminals.

With the newest vehicles, the HOCHBAHN is expanding its rolling development lab for modern drive technology to a total of about 65 vehicles.

Key findings through direct comparison and cooperation

Olaf Scholz, First Mayor of the City of Hamburg, is convinced that the Innovation Route will offer important findings to accelerate the development of more sustainable and resource-saving buses: “The goal of only acquiring emission-free buses from 2020 is thus feasible.”

The CEO of HOCHBAHN, Günter Elste, was especially pleased about the cooperation between the industry and HOCHBAHN in this project:

“In this way, we demonstrate what we want to and can achieve with electric drives – a higher quality of life in the city.”

Martin Schmitz, Technology Manager of the VDV (Verband Deutscher Verkehrsunternehmen e.V), Association of German Transport Companies, also regards the future opportunities for sustainable drive concepts as positive:



“The use of electric buses in the German public transport system is constantly developing; nationwide, there are now about 20 projects and further will be added in the months to come.”

The Volvo 7900 Electric Hybrid

With its world-first electric hybrid bus incorporating Euro 6 equipment, electric motor and plug-in technology, Volvo is further developing its electro mobile pioneering role. Charging takes place at the end stop using a pantograph that is integrated with the charging station. When the bus has reached its parking position under the charging mast, the pantograph is lowered to both of the charging bars on the roof of the bus when the driver presses a button. The complete charging process takes only six minutes.

The lithium ion iron phosphate charger provides the electric motor (150 kW) with power. The bus travels at least seven kilometers purely on electricity, before the Euro 6 diesel aggregate switches on. On the stretches driven only on electricity, the bus is completely emission-free and extremely low-noise: Near to a Volvo 7900 Electric Hybrid, the noise level can be compared to normal conversation level.

The Volvo 7900 Electric Hybrid also offers a high level of flexibility of use: In selected areas, it can be driven on electricity alone, while it can be deployed as a hybrid bus on all scheduled routes. The technology used in the electric hybrid bus is that of the successful Volvo 7900 diesel hybrid bus, which ensures a high level of availability.

Volvo Bus Corporation is taking another step forward in the direction of electrification with its Volvo 7900 Electric Hybrid. There is a major interest in the new Electric Hybrid buses from numerous cities, both in Europe and in other parts of the world. Serial production is scheduled to commence early 2016.



Facts Volvo 7900 Electric Hybrid

- The bus is equipped with an electric motor that is powered by lithium batteries. It also has a small diesel engine
- The bus is charged quickly at charging stations via an overhead power connection. Recharging takes appr.6 minutes at end stations.
- The bus can be driven at least seven kilometres on electricity alone, covering the distance silently and entirely without exhaust emissions
- Enables indoor bus stops
- 75% fuel saving¹
- 60% energy reduction¹
- 75% CO₂ reduction¹
- Length: 12 m
- Height: 3280 mm
- Width: 2550 mm
- Passenger capacity: 95
- No. of seats, max: 32+1 (folded)
- Electrical motor: Volvo I-SAM, output: 150 kW, torque, max (Nm) 1200
- Gearbox: Volvo I-Shift
- Lithium-ion battery: voltage 600 V, capacity, total: 19 kWh

1) Estimated value on a city bus route of 10 kilometres, compared to a diesel bus Euro 6.

Watch the video with Volvo's first Electric Hybrid in commercial service in Hamburg, Germany: <https://www.youtube.com/watch?v=FseBmNiqrd0>

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