



## PRESS RELEASE

# Electric Solaris buses to open up an electromobility era in Hanover

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**"Our vision: zero emission" – with this motto üstra has started the test drives of three Solaris Urbino electric of the new generation. Yesterday, on 6th of April, the operator hosted the official launch of the test operation of battery buses in Hanover. The ceremony was attended by the representatives of üstra as well as Solaris. Many citizens and invited guests, including Dr. Barbara Hendricks, the Minister for the Environment of the Federal Republic of Germany, were present at the event.**

Last year, Solaris Bus & Coach won the tender for delivering the entire zero-emission transport system, that is not only the vehicles but also charging infrastructure. üstra has long been a provider of green and sustainable public transport, with Solaris as bus supplier. Hannover's municipal operator already runs Solaris hybrid buses and the city's fleet also includes diesel-powered Urbino 12. Since yesterday also battery-powered Urbino have been running on the city's streets.

Equipped with a host of modern innovations, the new Solaris Urbino 12 electric ensures the effectiveness of performance as well as low operating costs. The new 12-metre Urbino electric for üstra is fitted with the ZF AVE 130 electric drive with two independent axle-mounted motors. This concept frees up space for passengers and significantly reduces the weight of the vehicle. The lithium-titanate batteries with a total capacity of 125 kWh combined with the fast pantograph charging system offer nearly unlimited operational opportunities. Interestingly, while travelling passengers can observe the actual state of charge of the battery on the monitor. The state-of-the-art new Urbino electric are equipped with two ramps for barrier-free access. Besides the electric ramp which rises automatically, there is also the onboard one, which folds manually. Furthermore, all three buses are fitted with a wireless wi-fi network.

The innovative fast charging system allows the non-stop operation on the planned routes without returning to the depot. The batteries can be topped up through a charger which supplies 450 kW via pantographs mounted on the roof. With a single charge which takes only four to six minutes and the bus can run until it reaches the next charging point. There is also a traditional 32 kW overnight charging device, which uses a plug connection installed in the bus.

The Solaris electric buses will operate on routes 100 and 200, which connect the sights of the capital of Lower Saxony. It takes approximately 53 minutes to complete the drive on the 16-kilometre route with 42 stops. The charging point is located there, where both lines meet. These characteristics create excellent conditions for the test operation with the Solaris electric buses.

The Solaris battery buses will use the energy from the network of urban light rail, which will improve the energy efficiency of the project. üstra therefore does not need its own power substation to supply the energy to the charger. Additional energy savings can be gained thanks to the recuperation system in the vehicles. The kinetic energy recovered during the braking process may be returned to the traction batteries in the bus.

The aim of the test drives with Solaris electric buses is the thorough checking the buses and the

charging infrastructure in everyday traffic. The objective of the project is also to identify the new fields for improvement. Test results will be taken into consideration when planning the introduction of further electric buses into the Hanover's transport network which is the city operator's long-term goal for the future. The Federal Ministry of Environment, Nature Conservation, Building and Nuclear Safety (BMUB) supports the entire project financially.

Various variants of the Urbino electric have been present in Germany since March this year. So far these eco-friendly Solaris buses have been purchased by Braunschweig, Dresden, Düsseldorf, Hamburg and Oberhausen.

#### **Additional information**

##### **Mateusz Figaszewski**

E-mobility Development & Market Intelligence Director

Tel.: +48 61 66 72 347

Mobile: +48 601 652 179

Fax: 48 61 66 72 345

email: [mateusz.figaszewski@solarisbus.com](mailto:mateusz.figaszewski@solarisbus.com)

##### **About our company**

Solaris Bus & Coach sp. z o.o. is one of the leading producers of city and intercity buses in Europe. It focuses in particular on the development of zero-emission vehicles, i. e. electric and hydrogen buses as well as trolleybuses. This has resulted in the widest zero-emission product range in the European market and a leading position in this segment with a market share of 15.2%. Nearly 25,000 Solaris vehicles have been delivered so far and they ply the streets in 850 towns and cities across 33 countries located throughout Europe as well as beyond it. Solaris is part of the Spanish CAF Group (Construcciones y Auxiliar de Ferrocarriles) S.A. From conception, to the design and manufacturing phases, all Solaris buses are produced in Poland. Moreover, all activities undertaken by the manufacturer are in line with the brand's mission, which is reflected in the motto "We are changing the image of public transport". Solaris also actively partners with public transport operators and provides them with comprehensive support in their transition to zero-emission mobility.