



PRESS RELEASE

Solaris in the booming hydrogen bus market

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Solaris is a highly experienced partner when it comes to the deployment of hydrogen technology in the public transport field. 40 customers from 10 European countries have already signed contracts with the manufacturer and placed orders for over 700 vehicles.

The Urbino hydrogen bus has been winning over more and more clients, starting with the decision to develop a prototype of a 12-metre bus, powered solely by a hydrogen fuel cell, to the launch of this bus model in 2019, followed by the launch of an articulated, 18-metre version. Passengers, drivers and carriers in European towns and cities, all appreciate the benefits of travelling in these state-of-the-art vehicles. Today, Solaris is a leader in deploying hydrogen technology in public transport and an experienced partner for 40 operators. So far, the manufacturer has delivered nearly 200 hydrogen-powered vehicles. What is more, Solaris is now working on the completion of orders for at least another 500 hydrogen vehicles, and hydrogen buses account for an increasingly significant share in the production mix of the manufacturer.

Over the last few months, Solaris has landed several particularly prestigious orders. In September 2023, the company signed the biggest ever one-off contract in Europe for the delivery of hydrogen buses. The municipal public transport operator TPER, in the city of Bologna, purchased as many as 130 Urbino 12 hydrogen buses. In addition, the carrier will also have the possibility to extend the order by another 140 vehicles.

Another Italian public transport operator, Azienda Veneziana della Mobilita, has ordered an impressive number of 90 Urbino hydrogen vehicles, including 75 12-metre and 15 articulated units. These zero-emission hydrogen buses will be put into operation both on the mainland and on the islands of the Venetian Lagoon. This contract also stipulates an option to extend the order by an additional 23 vehicles.

An equally considerable order has been secured by the bus maker in the German market. The German carrier RVK Köln has yet again opted for Solaris hydrogen buses, for a third time to be precise. Its impressive fleet of 35 Solaris hydrogen buses will be joined by 18 articulated vehicles that boast hydrogen fuel cell technology. The Urbino 18 hydrogen model, selected by RVK, will feature cutting-edge driver assistance systems.

Recognising the ongoing development of the hydrogen vehicle market, and thus seeing a growing number of orders for buses powered by a hydrogen fuel cell, Solaris has been strengthening this particular area of its business activity. One of Solaris's latest hydrogen-related projects is the construction of its Hydrogen Hall, which will constitute a part of the manufacturing line dedicated solely to hydrogen drivelines.

Solaris's impressive order book - containing orders for vehicles from customers from Austria, Switzerland, Germany, Spain, France, Italy, the Netherlands, Poland, Sweden, and Slovakia - is reflected in market data. In 2022, 99 hydrogen buses were registered in Europe for public transport purposes. Though data for the whole of 2023 is not yet in, currently one can compare this figure to the first three quarters of 2023. A total of 137 brand-new buses fuelled by a hydrogen fuel cell rolled out onto Europe's streets back then, which means an increase of 38% on 2022. The figures for the last

quarter will certainly only improve this result. For comparison, just a few years ago, in 2018, not a single hydrogen bus was registered in Europe.

As predicted, the zero-emission bus market is anticipated to grow over the next few years. European countries have ambitious emission reduction goals, and hydrogen buses are considered a viable solution to help meet these targets and to improve urban air quality[1]. According to the current position of the Council and the European Parliament, all new city buses in EU will be 100% zero-emission by 2035[2].

When it comes to hydrogen refuelling stations, there are currently over 230 such stations in operation, and another 120 are under construction[3]. Hydrogen infrastructure will be expanded, and pursuant to the AFIR Regulation coming into force in April this year, hydrogen refuelling stations will be deployed with a maximum distance of 200 km between them along the most significant EU transport corridors by 2030[4].

There are a number of arguments in favour of hydrogen. The first is the fact that hydrogen is an entirely clean energy source when used as a fuel and it produces no carbon emissions. Of no less significance are such advantages as the long ranges, high energy density, fast refuelling, flexibility in managing a fleet of hydrogen vehicles, and how distinctively quiet it is in operation. However, the Solaris's mission goes far beyond the manufacture of hydrogen vehicles themselves – the bus maker also aims to be a partner in implementing this technology in public transport.

[1] <https://www.fortunebusinessinsights.com/hydrogen-buses-market-108502>

[2] <https://www.consilium.europa.eu/en/press/press-releases/2024/01/18/heavy-duty-vehicles-council-and-parliament-reach-a-deal-to-lower-co2-emissions-from-trucks-buses-and-trailers/>

[3] <https://h2.live/>

[4] <https://eur-lex.europa.eu/eli/reg/2023/1804/oj>

Additional information

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About our company

Solaris Bus & Coach sp. z o.o. is one of the leading European bus and trolleybus manufacturers. Benefiting from 27 years of experience and having manufactured over 24,000 vehicles, Solaris affects the quality of city transport in hundreds of cities across Europe every day. Thinking of the future, the firm is setting new standards by dynamically developing its products, in particular in the electromobility sector. Solaris electric buses, trolleybuses and hydrogen buses are cutting-edge solutions for zero emission public transport. Solaris products have been repeatedly awarded for quality and innovation. The Solaris Urbino 12 electric won the prestigious European "Bus of the Year 2017" competition. In September 2018 Solaris Bus & Coach sp. z o.o. joined CAF Group.