



## PRESS RELEASE

### A second lease of life for batteries

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**A consortium comprised of Solaris Bus & Coach sp. z o.o., Impact Clean Power Technology S.A. and TAURON Polska Energia will implement a project titled “Second Life ESS” with the aim to create a prototype system to store electric energy based on retired bus batteries. The project is being co-financed by the National Centre for Research and Development [NCBiR] in Poland.**

Solaris launched its first electric bus back in 2011. Since then, the manufacturer has sold over 1000 e-buses to several dozen towns and cities across 18 countries. The first of the vehicles delivered then have now covered over half a million kilometres each. This means that in some of them it will be necessary to replace their battery packs.

“Over time and as a result of their operation, batteries run down their capacity. To put it simply, one may assume that a battery reaches its end-of-service in an electric bus once its capacity drops below 80% of its original value. However, it can still serve as an excellent form of electrical energy storage in stationary applications. Hence the idea for the second-life battery project, which we will implement in cooperation with TAURON and Impact”, explains Łukasz Chelchowski, Director of the Office of Development at Solaris.

The aim of the project is to utilise lithium-ion cells whose parameters are no longer optimal when it comes to supplying power to vehicles. But thanks to their integration in energy storage systems, they may gain a second lease of life. Thus, the life cycle of batteries that are not disposed of, but reused, is prolonged. A storage system made of used batteries constitutes an important component of the modern grid, combining the generation of energy from conventional and renewable sources with its storage and supply to the final customer. What is more, modern battery storage solutions ensure grid stability, with the steadily increasing share of renewable energy sources. They also boost the quality of electricity supplied and support the development of e-mobility and micro-grids.

Second Life is a research project, carried out in collaboration with the National Centre for Research and Development. The work, aimed at developing an energy storage prototype system, is due to be completed in 2022.

Solaris will provide batteries with a nominal capacity of 160 kWh for the construction of the prototype system as part of the project. Previously, the batteries had been used in an electric bus operated by public carrier PKM Jaworzno. It is worth remembering that PKM Jaworzno is one of Poland's leaders in e-mobility. 23 battery-powered buses are already in use in its fleet and another 20 ebuses from Solaris are during delivery process. It means that soon almost 80% of bus fleet in this city are going to be zero emission battery buses.

#### Additional information

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#### About our company

Solaris Bus & Coach sp. z o.o. is a leading producer of city and intercity buses in Europe. It focuses on the development

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of low-emission and zero-emission vehicles, i. e. electric and hydrogen buses as well as trolleybuses. Over 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. All activities undertaken by the company are in line with its mission, which is reflected in the brand's promise: to change 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. Solaris products have been repeatedly awarded for quality and innovation. The Urbino 18 hydrogen bus has won the prestigious 'Bus of the Year 2025' title.