



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 Chełchowski, 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 e-buses 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 one of the leading European bus and trolleybus manufacturers. Benefiting from nearly 25

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years of experience and having manufactured over 20,000 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.