

Siemens receives funding approval for developing fuel cell drive for trains

- **Siemens and Ballard jointly develop fuel cell drive for trains**
- **German Federal Ministry for Transportation and Digital Infrastructure funds project with around €12 million**
- **Mireo regional and commuter train platform to be reference**
- **Zero-emission operation without overhead lines**

Siemens and Ballard Power Systems Inc., a Canadian manufacturer of fuel cells, plan the joint development of a fuel cell drive for the Siemens Mireo train platform. Working together, the two companies intend to develop a new generation of fuel cells with an especially long lifecycle and high power density as well as improved efficiency. RWTH Aachen University is a partner in the research project. The German Federal Ministry for Transportation and Digital Infrastructure (BMVI) will support Siemens and RWTH Aachen with project funding of roughly €12 million as part of the Ministry's "National Hydrogen and Fuel Cell Technology Innovation Program". The program will be coordinated by the National Organization for Hydrogen and Fuel Cell Technology (NOW GmbH).

"We are seeing a rapid rise in demand for CO₂-free fuel cell technology. This applies to all sectors of passenger and freight transport, whether it is trains, trams, buses or trucks," says Randy MacEwen, President and CEO of Ballard Power Systems.

"Our cooperation with Ballard marks a decisive step being taken to replace diesel-powered rail vehicles with emission-free vehicles in order to provide sustainable and climate-friendly mobility over the long term. We want to be able to offer our customers flexible train solutions – that vary depending on regional conditions and

technical possibilities – for different types of local rail routes,” says Sabrina Soussan, CEO of the Siemens Mobility Division.

The long-term goal of the cooperation is to develop a modular and scalable traction system with fuel cells that will be integrated into the Mireo train platform. With such a system, the Mireo can flexibly operate in various ways – battery-electric as well as on routes without overhead lines – with the help of hydrogen-fueled trains. The fuel cell technology is to be ready for service by 2021, and its integration in additional vehicle platforms will follow.

The new Mireo regional and commuter platform from Siemens was specially developed for sustainable and flexible operations, and is thus predestined for the testing of an alternative drive system. Thanks to its lightweight construction, energy-efficient components and intelligent electrical system management, the Mireo uses up to 25 percent less energy compared to trains with similar passenger capacity.

This press release and other material are available at:

www.siemens.com/press/PR2018020172MOEN

Contact for journalists

Eva Hauptenthal

Phone: +49 89 636 24421; E-mail: eva.hauptenthal@siemens.com

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