Allison Transmission Developing a Next Generation Electrified Transmission

October 5, 2021

Allison to accelerate development of transformational electrified transmission technologies for future U.S. Army combat vehicles

INDIANAPOLIS--(BUSINESS WIRE)--Oct. 5, 2021-- Allison Transmission, a leading designer and manufacturer of conventional and electrified vehicle propulsion solutions for tactical wheeled and tracked defense vehicles, and medium- and heavy-duty commercial vehicles is accelerating the development of electrification technology for integration into the U.S. Army's ground combat vehicle fleet including tracked Infantry Fighting Vehicles and the Main Battle Tank.

Defense tracked and wheeled vehicle electrification continues to gain momentum and increased U.S. government investment as commercial markets advance emerging technology. Military benefits of electrified vehicles include silent mobility to reduce enemy detection and increased survivability, exportable power provisions for on-board and off-board systems, and flexible operational modes capable of balancing performance and fuel economy demands.

"Our Defense team leverages Allison's investments for commercial products and applies them to defense applications," said Dana Pittard, Vice President for Defense Programs at Allison Transmission. "The Next Generation Electrified Transmission is informed by Allison's two decades of experience in electrified propulsion. Now we are focused on powering the U.S. Army's Optionally Manned Fighting Vehicle (OMFV) a tracked vehicle program that could be the Army's largest vehicle procurement in over four decades, with a potential volume of nearly 4,000 vehicles. Allison remains committed to working with our Defense partners and customers around the world to meet the demanding propulsion requirements of today, and developing solutions for the future."

"Electrification to the Army represents a means to achieving many different capabilities that enhance soldiers' effectiveness in multi domain operations. Specifically, it means the use of electric power to augment vehicle performance," and "We work closely with commercial partners to foster collaboration and leverage industry's investments in electrification technology development," said Michael Cadiuex, Director of the U.S. Army's Ground Vehicles Systems Center, in May 2021 during testimony to the House Armed Services Subcommittee on Tactical Air and Land Forces.

For the Next Generation Electrified Transmission, Allison will design, develop and validate a motor/generator and inverter system to be coupled to a tracked vehicle transmission. Coordination with U.S. Army's Ground Vehicle Systems Center is ongoing and Allison will begin work to accelerate the Next Generation Electrified Transmission program.

The Next Generation Electrified Transmission has been selected by American Rheinmetall Vehicles for their OMFV offering. Looking to the future, the U.S. Army is also considering replacing its heavy wheeled vehicle fleets with a Common Tactical Truck, and is considering options for new main battle tanks. These programs are likely to rely on electrification.

Allison's electrification portfolio for defense applications also includes the Transmission Integral Generator (TIG) which for the last year has undergone rigorous testing by the Ground Vehicle Systems Center. The TIG was developed in partnership with Leonardo DRS, and is applicable to defense medium and heavy tactical wheeled vehicles.

"The TIG is an innovative technical solution that converts transmission mechanical power to electrical power for use on the vehicle or off the vehicle, providing up to 120kW of electrical power, and reducing reliance on traditional towable generators," said Pittard. The TIG was named the 2020 Military and Aerospace Electronic Innovators Platinum Award winner.

Allison is also evaluating future defense applications for the eGen Power™ product family consisting of single and dual motor fully integrated electric axles with a multi-speed gearbox, and gross axle weight ratings up to 13 tonnes. These are purpose built, fully integrated electric axles with a low gear ratio providing superior grade and launch capability, while the higher range optimizes energy consumption and system efficiency while operating at higher speeds.

About Allison Transmission
Allison Transmission (NYSE: ALSN) is a leading designer and manufacturer of vehicle propulsion solutions for commercial and defense vehicles, the largest global manufacturer of medium- and heavy-duty fully automatic transmissions, and a leader in electrified propulsion systems that Improve the Way the World Works. Allison products are used in a wide variety of applications, including on-highway trucks (distribution, refuse, construction, fire and emergency), buses (school, transit and coach), motorhomes, off-highway vehicles and equipment (energy, mining and construction applications) and defense vehicles (tactical wheeled and tracked). Founded in 1915, the company is headquartered in Indianapolis, Indiana, USA. With a presence in more than 150 countries, Allison has regional headquarters in the Netherlands, China and Brazil, manufacturing facilities in the USA, Hungary and India, as well as global engineering resources, including electrification engineering centers in Indianapolis, Indiana, Auburn Hills, Michigan and London in the United Kingdom. Allison also has more than 1,400 independent distributor and dealer locations worldwide. For more information, visit allisontransmission.com.

View source version on businesswire.com: https://www.businesswire.com/news/home/20211005006058/en/

Claire Gregory
Director, Global External Communications
Claire.Gregory@allisontransmission.com
317-694-2065

Source: Allison Transmission