October 16, 2019

# Cummins Unveils New Battery Powered Tactical Unit for U.S. Military

SHOREVIEW, Minn.--(BUSINESS WIRE)-- Cummins Inc. (NYSE: CMI) debuted the Tactical Energy Storage Unit during the 2019 Association of the United States Army (AUSA) show at the Washington Convention Center, October 14 – 16. The new Tactical Energy Storage Unit is the first battery hybrid power generation system for military use, further enhancing the performance and reliability of the Cummins Advanced Medium Mobile Power Sources (AMMPS) generators.

“The Tactical Energy Storage Unit is safe, quiet, and a high-quality product that we are pleased to bring to the U.S. military,” said Doreen Swanson, Program Manager of Cummins Military Programs. “Cummins has an 80-year history of providing quality service and dependable power solutions to our armed forces and this builds on that legacy. It is an honor to provide products that have a direct impact on improving the safety and well-being of U.S. military professionals in the field.”

This Tactical Energy Storage Unit offers a total integrated power system for any critical military operation and delivers improved, increased microgrid resilience, greater reliability and reduces the need of costs associated with generator maintenance. The energy storage unit has several safety features, such as high voltage interlock loop (HVIL) connectors and a master service disconnect component, to guarantee a safe, reliable and smooth operation no matter the conditions.

"We are excited to learn more about the new capabilities the Tactical Energy Storage Unit system will offer,” said Lieutenant Colonel Tony Leach, Product Manager for Mobile Electric Power Systems.

When paired with AMMPS, the tactical energy storage unit helps further reduce the need for fuel, further reduces costs and most importantly it significantly increases the safety of troops in combat; because fewer fuel transport runs are required and the operation of the generators are quieter. The AMMPS units launched in 2018 for the U.S. military are 21 percent more fuel efficient, 35 percent quieter, and 40 percent more reliable than the previous fleet of Tactical Quiet Generators (TQGs). Today, there are approximately 21,000 Cummins AMMPS units being used in Afghanistan, Africa, South Korea and the continental United States.

The batteries used on the Tactical Energy Storage Unit are designed for mobile outdoor applications with an IP66-rated enclosure, ensuring greater durability across a range of extreme environmental conditions. A 3-phase 60-kilowatt bidirectional inverter is also embedded, enabling the system to convert the energy stored in the batteries, producing higher power quality.

The unit is designed to seamlessly connect the Battery Management System (BMS), Inverter Control System and the Unit Control System so it is ready to pick up the load when the demand cannot be met by the generators. Through a smooth transition, the Tactical Energy Storage Unit reduces the frequency and magnitude of voltage disturbances during rapid changes of load demand, providing improved transient performance and better quality for sensitive loads.

In addition to the debut of the Tactical Energy Storage Unit, Cummins will display the ACE model, an opposed-piston diesel engine that works on a two-stroke combustion cycle, which eliminates the need for a valvetrain. ACE is projected to deliver a 21 percent reduction in thermal rejection, which is a 50 percent increase in power density and 13 percent increase in fuel efficiency over engines currently in use. Cummins will also display the V903 engine, first used in the Bradley Fighting Vehicle in 1981 to upgrade the power level of the commercial truck engine from 350 horsepower to 500 horsepower. In 2013, the V903 was re-engineered to produce 675 horsepower for the U.S. Army's Paladin M109A7 howitzer. Currently, the V903 is being fitted in the upgraded Bradley ECP 2 and Armored Multi-Purpose Vehicles (AMPV), replacing the M113 armored personnel carrier.

To learn more about the Tactical Energy Storage Unit, visit https://cummins.tech/energystorage.

**About Cummins Inc.**

Cummins Inc., a global power leader, is a corporation of complementary business units that design, manufacture, distribute and service a broad portfolio of power solutions. The company's products range from diesel and natural gas engines to hybrid and electric platforms, as well as related technologies, including battery systems, fuel systems, controls, air handling, filtration, emission solutions and electrical power generation systems. Headquartered in Columbus, Indiana (U.S.A.), since its founding in 1919, Cummins employs approximately 62,600 people committed to powering a more prosperous world through three global corporate responsibility priorities critical to healthy communities: education, environment and equality of opportunity. Cummins serves customers in approximately 190 countries and territories through a network of approximately 600 company-owned and independent distributor locations and over 7,600 dealer locations and earned about $2.1 billion on sales of $23.8 billion in 2018. See how Cummins is powering a world that's Always On by accessing news releases and more information at https://www.cummins.com/always-on. Follow Cummins on Twitter at www.twitter.com/cummins and on YouTube at www.youtube.com/cumminsinc.

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Source: Cummins Inc.