



## Allison Transmission announces total electrification option for components used with its H 40/50 EP™ system

November 7, 2014

INDIANAPOLIS, Nov. 7, 2014 /PRNewswire/ -- Allison Transmission Holdings Inc. (NYSE: ALSN) today announced availability of a new option to fully electrify components used with its H 40/50 EP™ hybrid propulsion system for transit buses and coaches.



Co-developed with Vanner Inc., Increased Accessory Power II (IAP II) is a customizable electric distribution platform that provides power from the hybrid system to accessory components such as electric air conditioning, electric air compressors and power steering systems. IAP II includes either a Single or Dual Hybrid Beltless Alternator (HBA).

"Allison's standard H 40/50 EP system typically improves fuel economy up to 25 percent over standard diesel buses," said Michael G. Headly, senior vice president of global marketing, sales and service for Allison Transmission. "When using a Vanner HBA with our system, a number of transit agencies in the U.S. have reported an additional average fuel economy improvement of 16 percent, for a total improvement up to 41 percent or more."

In addition to improving fuel economy, IAP II has also demonstrated these benefits:

- Allows accessories to operate at the most efficient speeds, improving energy management by reducing parasitic loads.
- Increases brake responsiveness by building air brake pressure faster than a conventional engine-driven pump.
- Improves low-speed vehicle maneuverability due to smoother power steering.
- Enables faster cabin cooling, without straining the engine or burning unnecessary fuel by running engines at high idle.

IAP II builds on the foundation of Allison's parallel hybrid propulsion system, as well as its release with the Vanner HBA and IAP I. Like IAP I, IAP II utilizes a high voltage distribution module (HVDM) for intelligent control of high voltage electrical power and an HBA (or dual HBAs) for DC to DC conversion of high voltage to 24 DC. However, IAP II adds an inverter that converts high voltage DC to high voltage AC that can power electric air conditioning, electric air compressor and power steering, while simultaneously eliminating the cost and need for the air conditioning system's integral inverter.

"Full electrification of a hybrid bus is the single most advantageous option a transit authority can realize that will improve fuel economy, reduce emissions and lower maintenance costs," said Steve Funk, president of Vanner. "The Allison H 40/50 EP hybrid already has a proven track record as a reliable sustainability solution. IAP II improves on the hybrid's efficiency by distributing the hybrid power throughout the entire bus."

The IAP II system is available in standard and articulated bus applications. All components will be delivered to OEMs on a pre-assembled and pre-wired rack. The racked solution enables customers to specify only those electrified components that they demand, while also offering better troubleshooting and easier maintenance than a boxed or individually sourced solution. Vanner will coordinate warranties for the IAP II 'racked' components.

Since 2003, Allison has delivered over 6,500 hybrid propulsion systems which have accumulated nearly 650 million miles, saving over 34 million gallons of fuel and preventing 340 metric tons of carbon dioxide from entering the atmosphere. It is anticipated that IAP II will offer even further fuel efficiency improvements.

### About Allison Transmission

Allison Transmission (NYSE: ALSN) is the world's largest manufacturer of fully automatic transmissions for medium- and heavy-duty commercial vehicles and is a leader in hybrid-propulsion systems for city buses. Allison transmissions are used in a variety of applications including refuse, construction, fire, distribution, bus, motorhomes, defense and energy. Founded in 1915, the company is headquartered in Indianapolis, Indiana, USA and employs approximately 2,700 people worldwide. With a market presence in more than 80 countries, Allison has regional headquarters in the Netherlands, China and Brazil with manufacturing facilities in the U.S., Hungary and India. Allison also has approximately 1,400 independent distributor and dealer locations worldwide. For more information, visit [allisontransmission.com](http://allisontransmission.com).

### About Vanner Inc.

Vanner Inc. is a privately held company producing commercial vehicle energy management systems since 1977. Vanner is a leader in developing energy solutions for transit and coach buses, ambulances, trucks, mobile office and military vehicles. Vanner continues to solve operational, fuel

efficiency and emission challenges for commercial transportation with awarding winning engineering and innovation. Vanner's HBAs are the preferred choice by OEMs and customers for the Allison H 40/50 EP with over 1,600 in transit service since 2010. Vanner's products are proven, road-tested, rugged, reliable and safe. Visit [www.vanner.com](http://www.vanner.com) or call 1-800-227-6937.

#### **Forward-Looking Statements**

This press release may contain forward-looking statements. All statements other than statements of historical fact contained in this press release are forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as "may," "will," "should," "expect," "plans," "project," "anticipate," "believe," "estimate," "predict," "intend," "forecast," "could," "potential," "continue" or the negative of these terms or other similar terms or phrases. Forward-looking statements are not guarantees of future performance and involve known and unknown risks. Factors which may cause the actual results to differ materially from those anticipated at the time the forward-looking statements are made include, but are not limited to: risks related to our substantial indebtedness; our participation in markets that are competitive; general economic and industry conditions; our ability to prepare for, respond to and successfully achieve our objectives relating to technological and market developments and changing customer needs; the failure of markets outside North America to increase adoption of fully-automatic transmissions; the discovery of defects in our products, resulting in delays in new model launches, recall campaigns and/or increased warranty costs and reduction in future sales or damage to our brand and reputation; the concentration of our net sales in our top five customers and the loss of any one of these; risks associated with our international operations; brand and reputational risks; our intention to pay dividends; and labor strikes, work stoppages or similar labor disputes, which could significantly disrupt our operations or those of our principal customers. Although we believe the expectations reflected in such forward-looking statements are based upon reasonable assumptions, we can give no assurance that the expectations will be attained or that any deviation will not be material. All information is as of the date of this press release, and we undertake no obligation to update any forward-looking statement to conform the statement to actual results or changes in expectations.

Logo - <http://photos.pnewswire.com/prnh/20120702/DE33547LOGO>

SOURCE Allison Transmission Holdings Inc.

Craig M. Koven, Allison Transmission, [craig.koven@allisontransmission.com](mailto:craig.koven@allisontransmission.com), 317-242-3432