



Tenneco Debuts Solution For Waste Heat Recovery

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ThermoElectric generator enables the conversion of exhaust heat to electrical energy

Frankfurt, Germany, September 11, 2013 - Tenneco (NYSE:TEN) announced today that it is part of a consortium actively developing a solution for capturing waste exhaust heat in vehicles and converting it to electrical energy to be used to power electrical systems within the vehicle, supporting automakers strategies for improved fuel economy. The first rapid prototype of a Thermoelectric Generator (TEG) for light vehicle applications will be on display at Tenneco's booth at the 2013 Frankfurt IAA Motor Show (Hall 5.1, Stand A16).

In a typical internal combustion engine, approximately 30 percent of the fuel energy is used for actual vehicle propulsion, while more than 70 percent is lost, about half of it through the vehicle's exhaust system. Thermoelectric generators help capture a portion of the lost energy, convert it to electricity and redistribute it to electrical systems in the vehicle, which can ultimately support improved fuel efficiency.

Tenneco has added its experience in heat recovery technology and thermal management to an industry consortium tasked with optimizing the design, validation and testing of thermoelectric generators for light vehicles. Partnering with Tenneco is Gentherm, a global developer of thermal management technologies for the automotive industry, and two global vehicle manufacturers.

"While vehicle manufacturers have made significant progress in achieving emissions reduction and fuel economy, new technologies must be developed throughout the vehicle to address engines running at higher temperatures and with greater loads. With waste heat recovery, heat that would not otherwise be recycled can be put to use within the vehicle," said Dr. Wolfgang Reuter, vice president, sales and engineering, Tenneco Clean Air Europe.

The TEG is a unique heat exchanger that integrates cylindrical-shaped cartridges. Thermoelectric material is sandwiched together within the cartridges that are exposed to hot exhaust gas on one side and to engine coolant on the other side. The temperature gradient over the thermoelectric material results in a continuous electrical current flow, which is then redistributed to the vehicle. The modular design of the TEG enables packaging scalability depending on vehicle design, making it more cost-effective to integrate into the vehicle's exhaust system.

Tenneco is responsible for the overall system layout and integration, including validation testing for the project. TEGs must undergo rigorous durability testing, using a wide range of exhaust gas temperatures. The test process must also simulate harsh operating conditions on the underbody of the vehicle, such as road bumps, salt corrosion and other examples of severe conditions.

Testing and validation for the TEG is being conducted at Tenneco's global emissions technical centers in Edenkoben, Germany and Grass Lake, Michigan. The consortium anticipates that initial demonstrators will be available in early 2014.

Visit Tenneco in Hall 5.1, Stand A16.

About Tenneco

Tenneco is a \$7.4 billion global manufacturing company with headquarters in Lake Forest, Illinois and approximately 25,000 employees worldwide. Tenneco is one of the world's largest designers, manufacturers and marketers of clean air and ride performance products and systems for automotive and commercial vehicle original equipment markets and the aftermarket. Tenneco's principal brand names are Monroe®, Walker®, XNOx™ and Clevite®Elastomer.

About Gentherm

Gentherm (NASDAQ-GS:THRM) is a global developer and marketer of innovative thermal management technologies for a broad range of heating and cooling and temperature control applications. Automotive products include actively heated and cooled seat

systems and cup holders, heated and ventilated seat systems, thermal storage bins, heated seat and steering wheel systems, cable systems and other electronic devices. The Company's advanced technology team is developing more efficient materials for thermoelectric and systems for waste heat recovery and electrical power generation for the automotive market that may have far-reaching applications for consumer products as well as industrial and technology markets. Gentherm has more than 7,000 employees in facilities in the U.S., Germany, Mexico, China, Canada, Japan, England, Korea, Malta, Hungary and the Ukraine. For more information, go to www.gentherm.com.

This press release contains forward-looking statements. Words such as "anticipate," "expects," "will", "continue" and similar expressions identify forward-looking statements. These forward-looking statements are based on the current expectations of the company (including its subsidiaries). Because these forward-looking statements involve risks and uncertainties, the company's plans, actions and actual results could differ materially. Among the factors that could cause these plans, actions and results to differ materially from current expectations are: (i) changes in automotive or commercial vehicle manufacturers' production rates and their actual and forecasted requirements for the company's products, including the company's resultant inability to realize the sales represented by its awarded book of business; (ii) any change in customer demand due to delays in the adoption or enforcement of worldwide emissions regulations or any other changes in consumer demand and prices, including decreases in demand for automobiles or commercial vehicles which include the company's products, and the potential negative impact on the company's revenues and margins from such products; (iii) the general political, economic and competitive conditions in markets where the company and its subsidiaries operate; (iv) workforce factors such as strikes or labor interruptions; (v) material substitutions and increases in the costs of raw materials; and (vi) the company's ability to develop and profitably commercialize new products and technologies, and the acceptance of such new products and technologies by the company's customers. The company undertakes no obligation to update any forward-looking statement to reflect events or circumstances after the date of this press release. Additional information regarding risk factors and uncertainties is detailed from time to time in the company's SEC filings, including but not limited to its report on Form 10-K for the year ended December 31, 2012.

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