GTI and Yangquan to Build Gasification Demonstration Plant in China

06/19/2017, Des Plaines, IL- On June 13, Gas Technology Institute (GTI) and Yangquan Coal Industry Group signed an agreement to jointly develop an Industrial Demonstration Project for the R-GAS™ gasification process in China. The installation will be located at the largest coal-to-chemicals plant in Shanxi Province.

(PRWEB) June 19, 2017 -- "GTI is honored to be partnering with Yangquan, a Global Fortune 500 company, to mature this innovative gasification system," says Eddie Johnston, Senior Vice President, GTI Research and Technology Development. "This breakthrough technology provides significant economic and environmental benefits for Yangquan's coal-to chemical processes."

The R-GAS™ technology has been successfully operated at pilot-scale (18 tons per day) on sub-bituminous coal, bituminous coal, high ash fusion temperature anthracite coal, and petroleum coke—all with excellent test results. This testing has been conducted at GTI's pilot-scale facility located on an 18-acre campus right outside of Chicago, IL with more than 1,300 hours of hot fire testing achieved since commission of the pilot plant in December 2009.

The most recent long-duration testing was completed in December 2016 with a very high ash fusion temperature anthracite coal, which is predominant in China. This series of tests validated the robustness of the R-GAS™ process, demonstrating the capability to achieve >99% carbon conversion even with this low rank coal.

"Yangquan is one of the largest coal producers in China. This technology offers a step-change improvement in efficiency and cost over current gasification technology and is uniquely capable of gasifying China's low-rank coal," notes Mr. Zhai Hong, Chairman of Yangquan Group. "Coal is a leading energy choice in China, and finding the most cost effective and environmentally-friendly ways of using it will help to maintain its role as a vital contributor to our economy."

The demonstration plant will validate long-duration reliability, operability, and capital costs. Commercial versions of the new gasifier will be about one-tenth the size of competing entrained flow technologies, and the compact size and advanced design features drive higher efficiency and lower cost. Capital expenditures are estimated to be 15-25% lower than the most economical entrained flow technology.

The design enables rapid start-up and shut-down, feedstock flexibility—able to operate with all ranks of coal-and process optimization capability. R-GAS™ also consumes up to 30% less water and the higher efficiency results in lower overall emissions. Cost for electricity generation, chemicals, and liquid fuels production are estimated to be 15% to 25% lower compared with existing technologies.

About GTI: GTI is a leading research, development and training organization that has been addressing the nation's energy and environmental challenges by developing technology-based solutions for consumers, industry, and government for more than 75 years. www.gastechnology.org

About Yangquan Coal Industry Group: Yangquan Coal Industry Group is the 3rd largest coal/chemical company in China. In 2016, Yangquan Group's coal production capacity exceeded 76 million tons and
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