



GE Power Conversion Delivers VFD Solution for One of the World's Most Sophisticated and Innovative Motor Test Benches, Helping China Build Tomorrow's Most Efficient and Reliable Pipelines

- *With the Complete System Power Output of Up To 50 MVA, this VFD based Motor Test Bench is the Largest in China and One of the Largest Deployed in the World*
- *Power Conversion's Technical Solution Provides Most Comprehensive Motor Test Modes with Superior Performance in the Most Cost Effective Way*
- *GE's VFD Solution Allows One Single Test Bench to Complete the Test of Motors with Various Motor Types and Configurations in a Wide Power Range, i.e. 3-40 MW*
- *GE's Technology is Used to Test the 18-Megawatt Motors for China's West-East Gas Pipeline Project*

SHANGHAI—12 Feb 2015—By 2025 China's gas market will be 2.5 times bigger than it today. When GE (NYSE: GE) was chosen to deliver technology to support this growth, it was made clear only exceptional products would suffice.

GE's Power Conversion business was selected by China Machinery International Engineering Design & Research Institute (CMIE) to provide the 50 MVA VFD systems for a high power motor test bench for various types of motors in the range of 3-40 MW with highly sophisticated testing configurations and features. The motor test bench has been successfully applied to test 18-megawatt (MW) motors supplied by Shanghai Electric Machinery Co., Ltd (SEMC) for the West-East Gas Pipeline (WEPP) project, one of the largest infrastructure projects in China transporting natural gas fuel from Xinjiang to the Yangtze River Delta.

The motor test bench can be viewed as a "universal" test bench due to the wide power range (3-40 MW) of motors it can test for various types and a diverse range of configurations and operation modes.

"Seeing GE's test bench demo which is in line with our requirements successfully and smoothly running in operation has given us enormous confidence in GE and confirmed that it can provide a quality solution that is customized, efficient and reliable in the face of tough demands. Indeed, GE's MV7tst IGCT drive system has demonstrated superb robustness and control functionality to fulfill our most demanding requirements." said Mr. Yuan Kainan, the project leader from CMIE. "With such nationwide implications riding on the success of this project, we've found a partner in GE that has the capabilities to support mission-critical projects."

The test bench delivered by GE is packed full of technology innovations. Five patents related to the drive system have been filed. The MV7tst IGCT VFD system delivered for the motor test bench contains two high-density 27-MVA VFD line-ups. Each VFD line-up provides 9-level (line-to-line) high power quality output with GE patented modulation and control strategy that takes full advantage of power processing capability of power semiconductors in all operating conditions. The two VFD line-ups can be used for dual machine pump-back test configuration, or can be paralleled to test single high power motor load.

By offering a solution that answers all of CMIE's strict requirements, GE has helped to test its motors in a more efficient and cost-effective way. The comprehensive report after the test has been completed



also helps optimize future motor commissioning and system integration, saving further operational costs.

“We’re pleased that we have been able to demonstrate to the CMIE that we can solve the highest technical challenge in the field and provide world-class system engineering capability with strong system project execution capability.” said Richard Zhang, Global Technology Leader, GE Power Conversion. “By successfully providing one of the world’s most sophisticated motor test benches, which encompasses all the necessary testing scenarios, GE’s Power Conversion business is playing a vital role in enabling the swift and efficient development of the latest phase of the West-East Gas Pipeline project.”

“We are pleased that GE’s Power Conversion business delivered within 10 months. The ultra-quick delivery time for such a sophisticated test bench is a strong testimony of GE’s ability to deliver system solutions and our execution capability.” added by Mr. Yuan from CMIE.

About GE Power Conversion

GE’s Power Conversion business applies the science and systems of power conversion to help drive the electrification of the world’s energy infrastructure by designing and delivering advanced motor, drive and control technologies that evolve today’s industrial processes for a cleaner, more productive future. Serving specialized sectors such as energy, marine, oil and gas, renewables and industry, through customized solutions and advanced technologies, GE Power Conversion partners with customers to maximize efficiency. To learn more, please visit: www.gepowerconversion.com.

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About GE

GE (NYSE: GE) works on things that matter. The best people and the best technologies taking on the toughest challenges. Finding solutions in energy, health and home, transportation and finance. Building, powering, moving and curing the world. Not just imagining. Doing. GE works. For more information, visit the company’s website at www.ge.com.

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