Siemens H-Class gas turbine attains 100,000 EOH over the entire fleet

The fleet of Siemens H-class world-record gas turbines achieved a cumulative 100,000 equivalent operating hours at the end of September 2014. Forty of the H-class gas turbines have been sold worldwide to date. Eleven of these machines are currently in successful commercial operation with a high degree of starting reliability and availability. This makes them the most successful H-class gas turbine on the world market.

Recently high efficiency levels of more than 60 percent were demonstrated in commercial operation in the combined cycle power plants (CCPP) in South Korea, Dangjin 3 and Andong. A net efficiency of 60.75 percent had already been demonstrated at the Irsching plant in Germany back in 2011. The 50 Hertz machine SGT5-8000H is marketed with a capacity of 400 MW in pure gas turbine operation and 600 MW in CCPP single shaft operation. The SGT6-8000H is marketed with 286 MW and 430 MW in CCPP single shaft arrangement.

The SGT-8000H series builds upon the tried-and-tested Siemens F and G-class turbine series, which has logged more than 25.9 million cumulative operating hours. The success of this gas turbine series is based on years of development work with intense R&D effort, on meticulous testing of the individual components and systems and on long-term and thorough validation of the model. This series was not only tested in the test bed in Berlin, but also under actual power plant conditions, i.e., in full-load operation feeding the generated power to the grid. Testing was initially conducted in pure gas turbine operation and ultimately successfully completed in combined cycle operation.

These air-cooled machines not only enable efficiency levels to be achieved which
were out of reach until now, but also offer the greatest possible operating flexibility, with short startup times and fast load-changing capabilities. They also stand out thanks to their low emissions in base and part-load operation.

Efficiency levels of more than 61 percent can even be achieved through further development of the overall drive train and optimization of the water/steam cycle, along with improvement and development of the other power plant components toward a fully integrated overall solution. In the process, operating flexibility can be enhanced further by optimal interaction between the individual power plant components in an SGT-8000H power plant solution.

Siemens gas turbine SGT5-8000H

The picture shows the Siemens gas turbine SGT5-8000H during assembly in the Siemens gas turbine manufacturing facility in Berlin, Germany.

This press release and a press picture is available at www.siemens.com/press/pi/PR2014100034PGEN

For further information on Division Power and Gas, please see www.siemens.com/about/en/businesses/power-and-gas.htm

For further information on SGT5-8000H gas turbine series, please see www.energy.siemens.com/hq/en/fossil-power-generation/gas-turbines/sgt5-8000h.htm
Contact for journalists
Gerda Gottschick
Phone: +49 9131 18-85753; E-mail: gerda.gottschick@siemens.com

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