Siemens receives German Industry’s Innovation Award
Award for world’s most efficient gas turbine power plant

Siemens has received the German Industry’s Innovation Award in the large companies category. The award was won by the Siemens H-Class gas turbine, which holds the world efficiency record at 60.75 percent in combined cycle duty. The award in recognition of the outstanding innovation was presented in Frankfurt on Saturday by Wirtschaftsclub Rhein-Main at a gala event held in the Palais Thurn und Taxis. The award, which is listed as the world’s first innovation award, was made under the patronage of the Federal Ministry for Education and Research. Günther Oettinger, EU Energy Commissioner, presented the award to Michael Suess, CEO of the Energy Sector and member of the Managing Board of Siemens AG. Including the test phase, development of the SGT5-8000H gas turbine lasted a good ten years. Siemens invested approximately half a billion euros in development and operation of the prototype plant in Irsching, Bavaria. A single gas turbine of this type can supply in combined cycle mode a major city like Berlin with eco-friendly electricity.

“This award is recognition for our work over a whole decade and the efforts of more than 750 Siemens employees,” said Michael Suess. “I’m delighted to receive this award on behalf of them.” Siemens is the sole supplier worldwide with a combined cycle power plant with a certified efficiency of more than 60 percent in its portfolio – making it the world’s most eco-friendly fossil-fired power plant on the market. “Pioneering spirit is Siemens’ elixir of life, and innovations are the foundation for future growth. With the launch of the H Class we’ve once again underscored our innovation leadership,” added Suess. The letter “H” in gas turbine engineering stands for highest efficiency. The award-winning technology has been in commercial operation at the E.ON power plant Ulrich Hartmann in Irsching since last June of last year. In trial operation, the combined cycle power plant attained under the supervision of the TÜV-Süd technical inspectorate a world-record efficiency of 60.75 percent at an electrical output of 578 megawatts. Extremely high operating flexibility was also demonstrated.
With this innovation Siemens has written engineering history. The new combined cycle power plant needs approximately one-third less fuel per kilowatt-hour (kWh) generated than the average for gas-fired power plants installed worldwide. This increase in efficiency not only offers significant fuel cost savings potentials but also contributes with a significant reduction of CO₂ emissions toward sustainable power supply and thus also toward climate protection.

The new gas turbine was developed in cooperation with universities and research institutes at the Siemens locations in Erlangen, Berlin and Muelheim, and in Orlando, Florida. In addition to production at the existing Siemens plant in Berlin, the turbine will also be manufactured at the recently opened facility in Charlotte in the U.S. “Today, we already have orders for six 60-Hertz (Hz) turbines from Florida and one order for a complete combined cycle power plant from Bugok in South Korea, which will go on line before the end of this year and in 2013,” said Suess. Thanks to its high operating flexibility the new H-Class gas turbine is admirably suited for deployment in the energy mix together with wind and solar power plants. When the wind is not blowing and the sun is not shining, the turbine can compensate on short notice the lack of power generated using renewables.

High-efficiency combined cycle power plants are part of Siemens’ Environmental Portfolio. In fiscal 2011, revenue from the Portfolio totaled about EUR30 billion, making Siemens one of the world’s largest suppliers of eco-friendly technologies. In the same period, our products and solutions enabled customers to reduce their carbon dioxide (CO₂) emissions by nearly 320 million tons, an amount equal to the total annual CO₂ emissions of Berlin, Delhi, Hong Kong, Istanbul, London, New York, Singapore and Tokyo.

The Siemens Energy Sector is the world’s leading supplier of a complete spectrum of products, services and solutions for power generation in thermal power plants and using renewables, power transmission in grids and for the extraction, processing and transport of oil and gas. In fiscal 2011 (ended September 30), the Energy Sector had revenues of EUR27.6 billion and received new orders totaling approximately EUR34.8 billion and posted a profit of more than EUR4.1 billion. On September 30, 2011, the Energy Sector had a work force of more than 97,000. Effective October 1, 2011, the Power Distribution Division with a work force of more than 15,000 was reassigned to the new Infrastructure & Cities Sector. Further information is available at: www.siemens.com/energy.
Caption:
Siemens receives the German Industry’s Innovation Award in the large companies category. The photo shows Michael Suess, CEO of the Energy Sector and member of the Managing Board of Siemens AG, and Günther Oettinger, EU Energy Commissioner, at the award ceremony in the Palais Thurn und Taxis in Frankfurt on February 11, 2012.

Download of this press photo: [http://www.siemens.com/fossilpower/picture/EFP201202028](http://www.siemens.com/fossilpower/picture/EFP201202028)