

## **German/Indian Joint Venture Set up in Power Plant Construction**

**Modern utility power plants from Hitachi Power Europe and BGR Energy Systems quell the hunger for energy on the Indian sub-continent and promote the country's industrial development.**

**Duisburg/Chennai, 6.8.2010.** Power plant constructor Hitachi Power Europe GmbH (HPE) has created an additional mainstay of business in a strongly expanding market by today finalizing the setting up of a joint venture with BGR Energy Systems Ltd. (BGR) in Chennai/India. HPE and the Indian industrial concern will together construct highly efficient utility steam generators ("boilers") for coal power plants and place them into operation. The idea is for a production plant to arise in the Indian federal state of Tamil Nadu by 2012 and with up to four utility steam generators being built a year. The intention behind this cooperation is for both partners to benefit from the rapidly growing market on the Indian sub-continent for new power plants. After all, India is set to more than double its electricity generation capacities in the short term and is relying to a considerable extent on low-emission, fossil fuel-fired power plants. Replaceable energies cannot cover the additional demand, are too expensive and are not reliably available.

The joint venture was signed on 6 August 2010 by the Chief Executive Officer of Hitachi Power Europe, Klaus Dieter Rennert, and Chairman and Managing Director of BGR Energy Systems, B.G. Raghupathy. "In BGR Energy Systems we have found an excellent partner to establish ourselves and our technologies on the Indian power plant market", said Klaus Dieter Rennert. He added that Hitachi Power Europe had a track record going back over a 100 years in utility steam generators and was a leading technology provider and market leader in Europe and South Africa. Chennai-based BGR Energy provided, as an established plant constructor, both the required access to the market and local know-how for the Indian power plant market.

Hitachi Power Europe has 30% of the holdings in the joint "BGR Boilers Private Ltd." venture, with 70% taken on by BGR Energy Systems Ltd. A facility for producing 660–1,000 MW class utility steam generators is scheduled to arise in Tamil Nadu by 2012. Following commissioning the idea is for the plant to deliver up to four highly efficient utility steam generators (3,000 MW in total) a year. It is envisaged that some 2,100 skilled employees will be working in production in the Indian federal state of Tamil Nadu in the 2017 business year. Even today BGR and HPE collectively participate as general contractor in various bid invitations for the construction of new coal power plants on the Indian sub-continent.

Modern coal power plants - for which HPE also supplies utility steam generators in Germany and abroad - attain efficiencies of up to 46% and thus represent some of the most modern of their kind in the world (in comparison: the average efficiency figure for the world is 30% and in the EU 38%). These high efficiency rates are obtained from the use of "supercritical" utility steam generators (600+ bar steam pressure and 300°C+ steam temperature). These kind of supercritical utility steam generators will also be built in India by the HPE and BGR joint venture. Higher efficiency power plants require less fuel to generate the same amount of electricity. This has the effect of both significantly lowering emissions – particularly CO<sub>2</sub> – and sparing valuable resources (fuel).

Even now Hitachi Power Europe produces major power plant components (such as pressure parts, coal mills/burners, steel structures) in its subsidiaries and related companies and, at the same time, can access highly efficient steam generators through the Hitachi Group. HPE is currently constructing 12 utility steam generators for two power plant sites in South Africa. Since South African coal is very similar (heating value, ash content etc.) to the coal in India, Hitachi Power Europe can resort to its experience and tried-and-tested products in this part of Africa.

According to Klaus Dieter Rennert, the latest joint venture for constructing utility steam generators has not only made the German energy plant constructor more independent in production. "The cooperation will also safeguard the jobs of colleagues in Germany in the years to come."

Along with this joint venture for utility steam generators, a further agreement was signed between BGR and HPE parent company Hitachi, Ltd., for the production of steam turbines for coal power plants. This puts Hitachi Power Europe, Hitachi, Ltd., and BGR into the position as EPC contractor of supplying all the major components of a power plant – from utility steam generators through to turbines/generators and environmental engineering – and placing them into operation.

In view of its size and enormous demand for new plants, the Indian power plant sector will continue to provide considerable opportunities for HPE. With a 1.2 billion population, the Indian sub-continent has 160,000 MW of installed electricity generating capacity (compared with 500 million people in the EU 27 and 820,000 MW); two-thirds of the electricity required comes from fossil fuel-fired power plants. The required overall capacity is set to rise to over 330,000 MW by 2017.

• Hitachi Power Europe GmbH (HPE), a subsidiary of Hitachi, Ltd., designs and constructs fossil fuel-fired plants and, with its references, is one of the market and technology leaders. The energy plant constructor also supplies key components such as utility steam generators, environmental engineering equipment, turbines and coal pulverizers. In 2007 the company set up its head offices at the Inner Port in Duisburg/North-Rhine Westphalia and has a workforce (including the related companies and manufacturing facilities) numbering around 2,000. Within the Hitachi Group, Hitachi Power Europe is responsible for the markets in Europe, Africa, Russia (incl. Belarus) and India.

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