Energy transition in Japan: Biomass power station with turbine technology by MAN Diesel & Turbo

Cooperation between Mitsui and MAN bearing fruit

The Japanese Mitsui Engineering & Shipbuilding Co., Ltd. has commissioned MAN Diesel & Turbo to supply the central turbine technology for a biomass power station in the Bay of Tokyo. Equipped with a steam turbine group from MAN, the power station of special purpose company Ichihara Biomass Power Co. Ltd. will generate around 50 megawatts of electrical power. As one of the largest biomass plants in Japan, the plant will produce renewable energy from wood pellets and palm kernel shells.

The electrical energy will mostly be fed into the public grid in order to also profit from feed-in tariff. Following the renunciation of atomic energy, natural gas has become a much more important source of energy in Japan. With the feed-in tariff for renewable energies that was increased in 2012, the Japanese government is now specifically promoting the decarbonization of the energy sector, for example through generation of electricity from biomass.

"The project is an example of worldwide transformation in the energy sector, which is now also gaining more momentum in Japan," said Holger Kube, Vice President and Head of the Power Generation Segment at MAN Diesel & Turbo in Oberhausen. "After the earthquake disaster in Fukushima, Japan is focusing on a changed energy mix in which renewable energies have now reached a share well in excess of 10%. Turbines and motors from MAN Diesel & Turbo are fundamental technologies for the decarbonization of energy generation in order to produce electricity and heat in an efficient and environmentally-friendly way."

Mitsui Engineering & Shipbuilding Co., Ltd. and MAN Diesel & Turbo have enjoyed a partnership for many years that was extended in May 2017 with a comprehensive agreement. Dr. Uwe Lauber, CEO of MAN Diesel & Turbo: “Driven by the global trends of decarbonization and digitalization, markets are in transition. We want to continue to combine our strengths to offer propulsion and energy solutions that help our customers to tackle tomorrow’s challenges. This will also include working more closely in the field of steam turbines and compressors – mainly for the Japanese market."
(MDT_1.jpg) The planned site in Ichihara, Chiba prefecture, Bay of Tokyo.

(MDT_2.jpg) Two-stage turbine concept: Similar to here, MAN is supplying a high-pressure and low-pressure turbine set to Japan.

**About MAN Diesel & Turbo**

MAN Diesel & Turbo SE, based in Augsburg, Germany, is the world’s leading provider of large-bore diesel and gas engines and turbomachinery. The company employs around 14,500 staff at more than 100 international sites, primarily in Germany, Denmark, France, Switzerland, the Czech Republic, India and China. The company’s product portfolio includes two-stroke and four-stroke engines for marine and stationary applications, turbochargers and propellers as well as gas and steam turbines, compressors and chemical reactors. The range of services and supplies is rounded off by complete solutions like ship propulsion systems, engine-based power plants and turbomachinery trains for the oil & gas as well as the process industries. Customers receive worldwide after-sales services marketed under the MAN PrimeServ brand.