

MAN's Resid-Fired Diesel Engines Providing Base Load Power

Resid-fired plants based on MAN diesel engines are in use around the world. A number of the contracts awarded to MAN in the 2007-2012 period were for resid-based base load power. Examples of base load resid plants from this period include two plants (each 212 MW) built for France's EDF. One of the plants is in Réunion and the other in Guadeloupe. Other based load resid plants were built for independent power projects (see the accompanying table). Other examples include the 225 MW Atlas plant in Lahore, Pakistan, and the 80 MW plant Berkat Bima Sentana plants in Sumatra, Indonesia, according to a presentation by Tilman Tutken of Germany-based MAN Diesel & Turbo at the World Fuel Oil Summit in Athens on May 20, 2016. The

summit was hosted by the Public Power Corporation of Greece and organized by Axelrod Energy Projects.

Power plants based on residual fuel oil engines can offer high efficiency, fast starting and load ramps, reduced emissions and high automation. Abatement systems can, if necessary, allow for a high sulfur fuels to be burned. A power plant is a capital investment of 20-40 years and diesel engines offer the flexibility to later convert from fuel oil to natural gas or another fuel. The cost of a resid-fired power plant can run \$100 million, and the flexibility of the resid-fired diesel engine to burn several fuels as well as start and stop is insurance against the plant becoming a stranded asset during its useful life.

MAN DIESEL & TURBO, SELECTED RESID-FIRED POWER PLANTS

Customer	Application	Location	MW Capacity	Fuel	Engine Type	Contract Award
Berkat Bima Sentana	Base load power plant	Belawan, Sumatra, Indonesia	80 MW	HFO	4 x 18V48/60TS	April 2012
Atlas Power	Base load power plant, Diesel Combined Cycle	Lahore, Pakistan	225 MW	HFO	11 x 18V48/60, 1 x steam turbine	November 2007
EDF	Base load power plant	La Réunion, France	212 MW	HFO	12 x 18V48/60	October 2008
EDF	Base load power plant	Guadeloupe, France	212 MW	HFO	12 x 18V48/60	August 2009

A new segment of the power-generation market is power plant rentals in the form of powerships. Older ships are relatively inexpensive, which has led to a trend in buying ships and installing power stations on the

ships. For example, a Karadeniz power ship (Irem Sultan) based on MAN diesel engines is supplying electricity to Mozambique and Zambia. This 110 MW floating power station commenced operation in March 2016. ■

