

Martigues, France

2 x 465 MW



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Martigues, France | 2 × 465 MW Repowering

First Horizontal Boilers with Post-Combustion for EDF

Project Description

The Martigues power station initially consisted of two oil-fired units of 250 MW each. Facility owner, Electricité de France (EDF), decided to repower the existing Martigues power station by replacing the former units with a combined cycle arrangement of two units, each of which is equipped with a GE 9FB gas turbine and a John Cockerill triple-pressure, supplementary-fired HRSG. Each repowered unit produces 465 MW.

The plant is located in the South of France, on the Mediterranean coast, near the Fos-sur-Mer industrial complex.

The Contract

In 2007, EDF launched an international call for tenders for the sites of Martigues, Blenod and West Burton. In February 2008, EDF awarded to John Cockerill a contract for the three units in France: Martigues 5 & 6 and Blenod.

Under the contract, John Cockerill was responsible for the design, supply, erection and commissioning of the boilers.

Plant Operation

The plant is designed for semi-base load operation: 4,000 hours per year.

Gas Turbines

- GE 9FB type
- ISO rated 280 MW
- Fuel: natural gas

Heat Recovery Steam Generators

- John Cockerill horizontal, natural circulation, fired HRSGs
- 3 output pressures to Steam Turbine + reheat
- Duct burner
- 93 MW supplementary firing

Performances

GAS	°C	kg/s	
Inlet	642.2	657	
Outlet	99.2	657	
STEAM	°C	barA	t/h
HP	566.4	113.7	451.6
IP	294.8	29.1	11.9
LP	122.3	2.5	11.01
Reheater	565.4	26.9	461.73

Schedule

- Contract Award February 2008
- Start of erection (first boiler) March 2009
- Commissioning first boiler October 2010
- HRSGs ready for PAC February 2011

