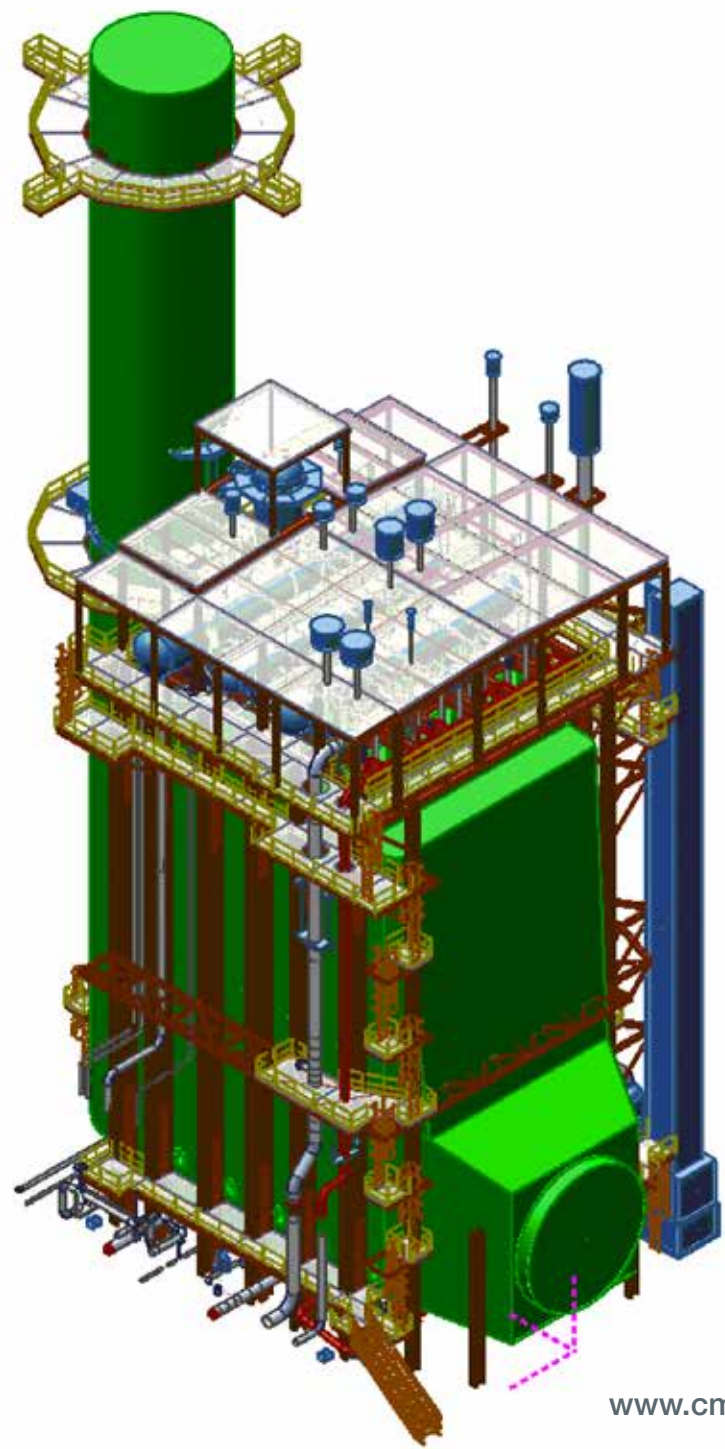
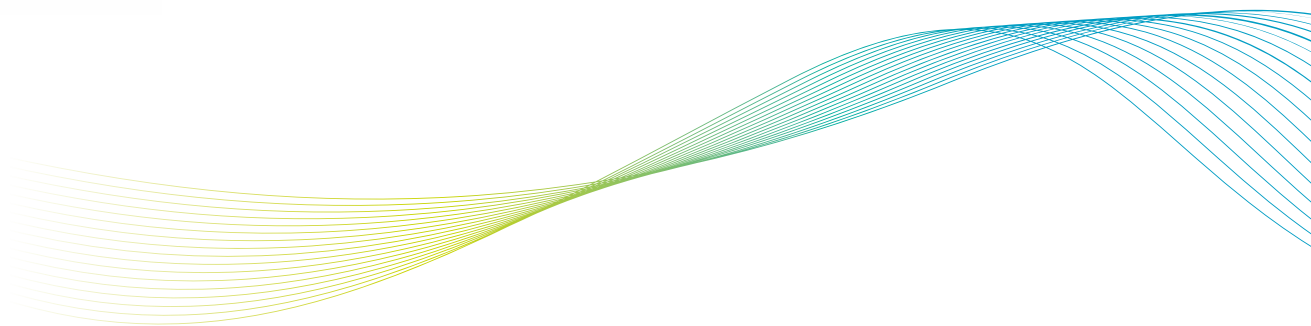




CMI ENERGY

Hamitabat Turkey | 1200 MW



First CMI HRSGs behind 8000H gas turbines

Context of the Project

The Hamitabat power plant is located approximately 180 km to the north west of Istanbul (Turkey). Built in the 1980's, it was the first natural gas fired combined cycle plant of Turkey. Between 1987 and 1988, CMI provided the plant with 8 Heat Recovery Steam Generators (HRSGs). In 2013, Limak Doğalgaz won the privatization tender of Hamitabat and took the plant over. The Hamitabat combined cycle power plant was coming to the end of its operational life and it was decided to replant it for a further 30-year lifespan with a total power output of 1,200 MW. It comprises two blocks, each one having a single-shaft configuration of one Siemens SGT5-8000H gas turbine, one SST5-5000 steam turbine and one CMI HRSG.

The Contract

In January 2015, the Turkish EPC GAMA awarded a contract to CMI Energy for the design and supply of two triple pressure plus reheat horizontal HRSGs. These new HRSGs are the largest ones CMI Energy has ever supplied. CMI Energy will also be in charge of supervising the assembly and commissioning of the HRSGs. In addition, CMI Energy will provide technical trainings to the users.

The first boilers supplied by CMI on this site in the late 1980's will have been in operation for almost 30 years and will be replaced with a new generation of CMI HRSGs that will be installed for the first time behind 8000H gas turbines. The new boilers technical characteristics allow them to operate in heavy cycling mode and facilitate fast start-ups and shut downs, which is an important operational criteria required by the plant end user. Also note that the superheaters and reheaters are fitted with stainless steel tubes.

Plant Operation

The Hamitabat combined cycle power plant is foreseen for heavy cycling mode, with fast start-ups and shut downs, as mentioned above. The flexibility of CMI boilers is an incontestable asset for this mode of operation.

CMI's optimized boiler technology particularly meets the requirements of the newest generations of larger turbines, as the 8000H type, which are even more demanding, complex and sophisticated.

Upon completion of the project, the Hamitabat power plant will be the highest capacity H-class among the 50 Hz market in the world.

Gas Turbines

- / Siemens SGT5-8000H
- / Fuel: natural gas

Heat Recovery Steam Generators

- / 2 horizontal CMI HRSGs
- / Add-on
- / Triple pressure + reheat
- / Natural circulation
- / 15 bundles with 26 meter long tubes

Steam	°C	BarA	t/h
HP	602	170	391
LP	241	5	56
Gas	632		3085
Hot Reheat	600	35	421

Schedule

Contract Award	January 2015
PAC Unit 1	June 2017