

# 242 MW INTEGRATED GASIFICATION COMBINED CYCLE

POWER

api energia  
Falconara - Ancona - Italy



**COMPLETION  
DATE** Frame  
Agreement

## PROJECT DESCRIPTION

Integrated Gasification Combined Cycle Plant (net power 242 MW) located close in the api Refinery in Falconara. The plant includes:

- 60 t/h visbroken tar gasification unit based on GEE (ex Texaco) License including H<sub>2</sub>S scrubbing, carbon recovery and grey water treatment, syngas cooling and conditioning, oxygen claus, sulphur unit
- Air Separation Unit producing oxygen for the Gasification and nitrogen for syngas dilution
- 287 MW combined cycle power plant consisting in No.1 gas turbine ABB 13E2, No. 1 HRSG, No. 1 ST and No. 1 water condenser.

The combined cycle power plant is fed with the syngas produced in the gasification unit. Api Energia awarded the EPC project to ABB.

## FOSTER WHEELER ITALIANA SCOPE OF WORK

FWI scope of work includes:

- Consultancy services as Owner's Engineer during project execution, start-up and acceptance test;
- SIL evaluation and reliability improvement study;
- Dynamic Simulation study for IGCC Master Controller design;
- Reliability improvement program;
- Engineering and construction of Plant Upgrading modifications (Combined Cycle, IGCC Instrumentation & Control System etc);

Following the modifications realized by FWI, from first year of operation (2001) to year 2004 the plant availability has increased from 60% to 90%.