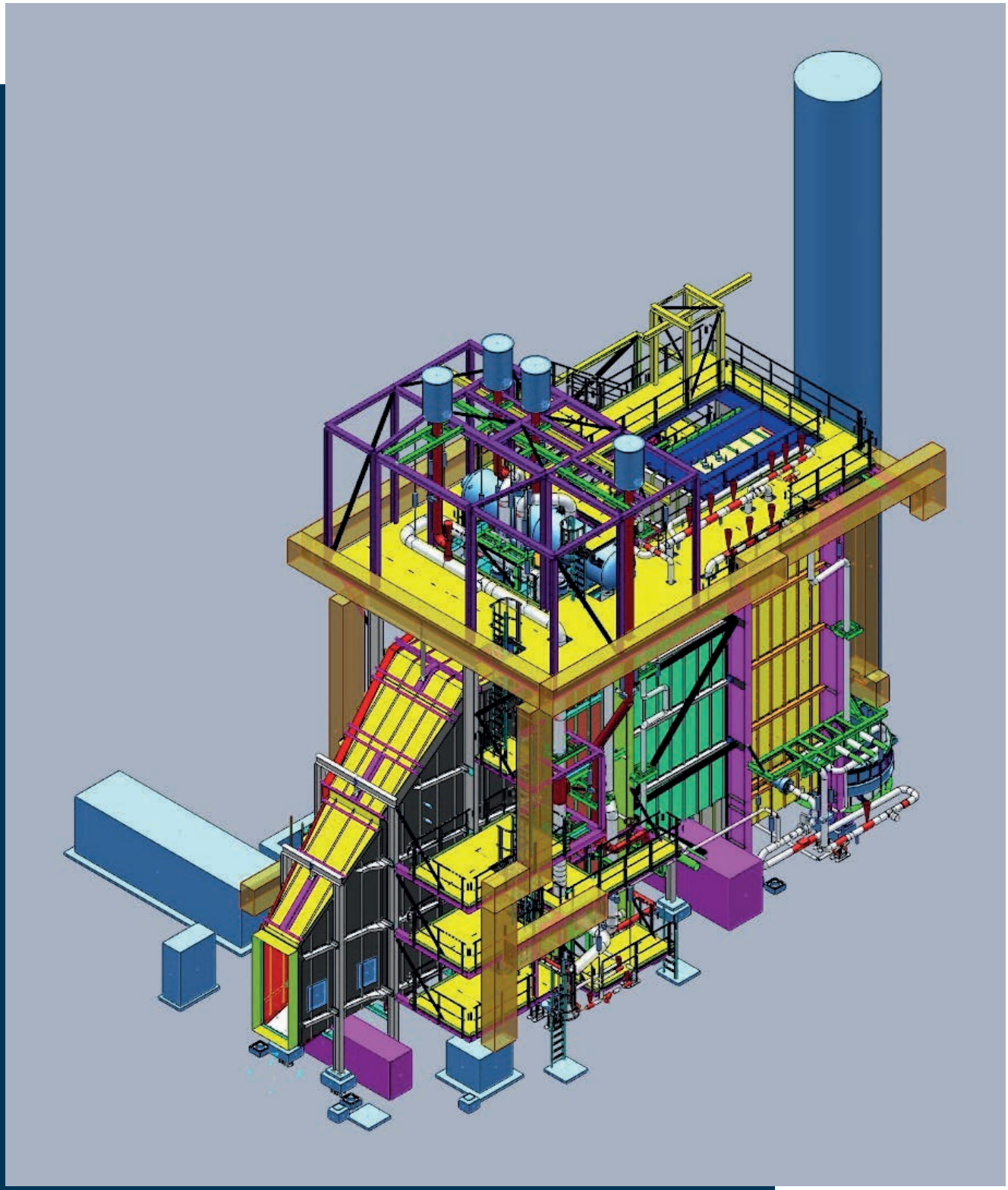
Rompetrol, Romania

70 MW



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Rompetrol Cogen Power Plant, Romania | 70 MW

An added 70 MW cogen facility to enhance the refinery production efficiency

Context of the Project

Built in the mid 1970s, the Petromedia refinery, located in Năvodari (Black Sea), is Romania's largest refinery and one of the largest in Eastern Europe. The refinery had been operating for more than 40 years when its owner decided to expand its capacity with the addition of a 70MW cogen facility utilizing 2 Siemens SGT-750 gas turbines associated to 2 John Cockerill HRSGs. The use of clean natural gas will enhance the refinery production, improve efficiency and reduce overall costs for steam production in the facility.

The Contract

Calik Enerji, the Turkish EPC, was awarded the EPC works for the construction of the added capacity cogen facility at Năvodari. Calik Enerji then awarded an order to John Cockerill for the design and supply of 2 single pressure horizontal drum style HRSGs equipped with duct burners and a district heating loop. The selection of John Cockerill was recognized by its customer as a superior supplier with an excellent reputation. John Cockerill's technology and experience proved to be the right fit for this project as it proved its ability to meet the aggressive project delivery schedules. Moreover, John Cockerill's highly effectively modular box technology facilitates easy transportation to the site and reduces project construction schedule. These advantages were highly valued by our customer and led to John Cockerill's success.

Plant Operation

The plant requires flexible steam generation with maximum availability. The John Cockerill HRSGs can provide over 170 MW of process steam and 12 MW of district heating water to the refinery. The plant is designed for a semi base load or cycling operation.

Gas Turbines

- 2 Siemens SGT-750
- Fuel : natural gas with refinery gas as back-up and blend

Heat Recovery Steam Generators

- 2 Horizontal drum type, equipped with duct burners
- Single pressure with district heating loop
- Natural circulation

Performances

Gas	°C		kg/s
Inlet	472		155.5
Outlet	91		155.5
Steam	°C	barA	t/h
HP	384	42.5	277.9

Schedule

- Contract Award — January 2022
- Start boiler erection — February 2023
- Full Commercial Operation — July 2023

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