

COMBINED HEAT AND POWER PLANT INSTALLATION IN TORUN, POLAND

As a consortium partner we have become turnkey supplier of a combined heat and power plant located in Torun, Poland. The plant installed electric power capacity is 100 MWe and thermal output is 340 MWth to distribute the hot water production via the city district heating network.

The project included:

- Two gas turbine units LM6000
- Two hot water heat recovery units
- Four back-up packaged hot water boilers
- District heating hot water system with heat accumulator
- Fuel handling and storage system
- Plant control system, field instrumentation and electrical part
- Civil part

The contract has been signed on a turnkey principle provided that unit packages of gas turbines and back-up boilers have been secured directly by EdF.

The combined heat and power plant shall primarily secure district heating of the Torun city in combination with electric power co-generation to improve the overall plant economics. The optimum plant utilization and hot water heat output control shall be secured by means of supplementary firing possibility in the hot water heat recovery units, heat accumulation possibility and/or use of back-up hot water boilers. The plant has been installed in exchange of an existing nearby coal fired boilers to substantially improve environmental measures of the municipal heating.



Client

EDF Polska S.A.

Year of Completion

2017

Design data

Hot water heat recovery boilers

- 2 x 116 MW_{th}
- 135/60 °C hot water heating
- vertical design
- supplementary firing (70 MW_{th})

Heat accumulator

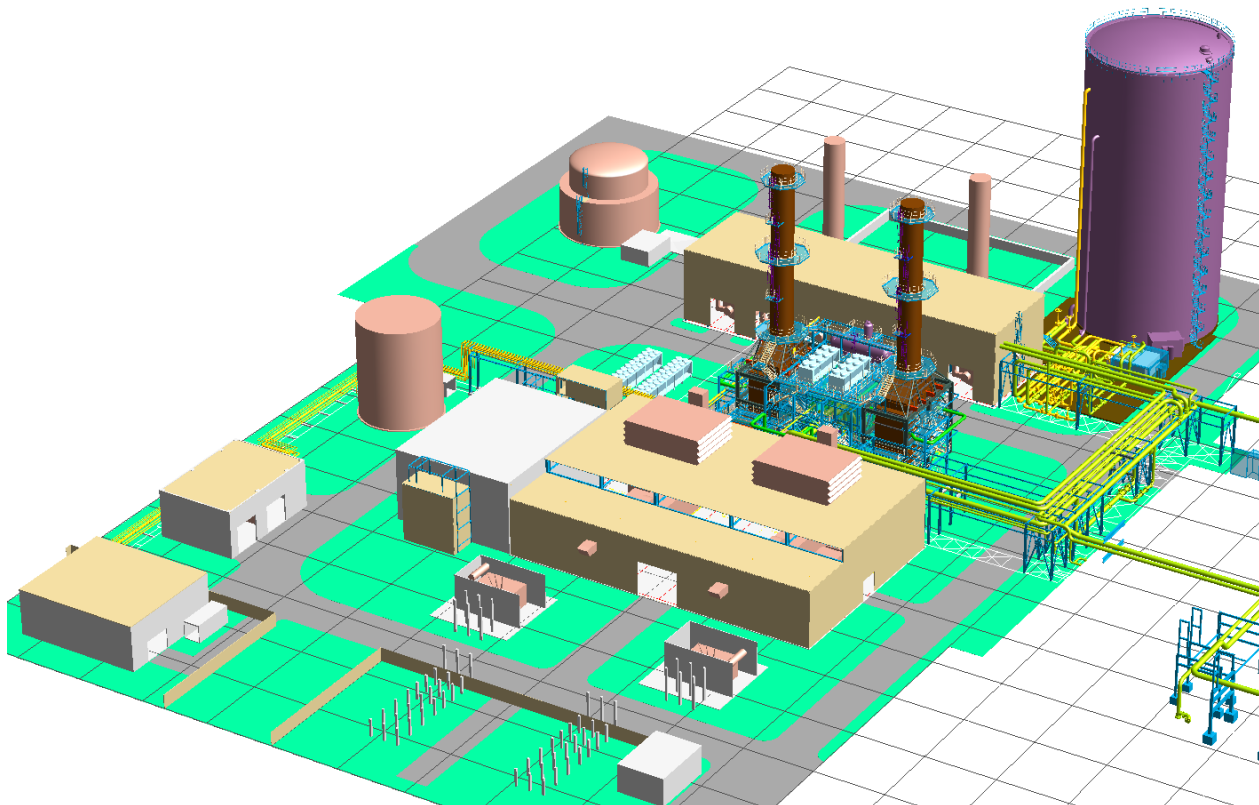
- 575 MW_{th} heat accumulation capacity
- 12 000 m³ water volume

UNIS Power scope of works

Design, manufacturing, delivery, erection and commissioning of 2 x Hot water heat recovery boilers, 1 x Heat accumulator, district heating balance of plant including piping systems, booster and recirculation pumps and overall heat control concept, make up water deaerator and feed pumps, plant cooling system, related civil structures etc.



Hot water heat recovery



3D plot plant view