UNIS Power took part in a challenging coal fired power project for Veolia Energia Łódź S.A. in Poland where German based EPC contractor was responsible for the turnkey delivery of two pulverized hard coal fired boilers.

In the initial phase UNIS Power has been responsible for 3D laser scanning of the existing boiler house area and processing the scan point cloud for further designing work. Subsequently UNIS Power took responsibility for boiler process design including setting of boiler operational philosophy, P&I diagram completion and to deliver and install the plant field instrumentation.

Boiler process design included
- HAZOP and Risk Analysis
- Boiler system description
- Block diagrams for boiler control
- Logic diagrams for safety part
- Alarm and trip list
- Signal list
- Interfaces with electrical part

The boilers represent typical coal fired re-powering project when completely new boilers were installed into an existing steel structure within given tight plant layout. Major challenge of the rehabilitation was to introduce a new state-of-the art environmental measures at the new boilers.

The boilers were supposed to be designed, delivered, erected and commissioned within 26 month time schedule. Despite complexity of the project and many site restrictions the boilers were put into commercial operation at full customer satisfaction.
Client
Babcock Borsig Steinmüller GmbH

Year of Completion
2016

Boiler data
- 2 x 230 t/h
- 138 bar(a)
- 540 °C
- pulverized hard coal fired boiler

UNIS Power scope of works
3D boiler scanning, boiler process design including boiler operational philosophy definition, completion of P&I diagrams, delivery and installation of field instrumentation including CEMS and SWAS etc.