

Biomass CHP Hosenfeld

Reference Story ProcessOPT BC



Stadtwerke Düsseldorf AG (SWD) is a utility for over half a million people. As one of many power plants that SWD operates as a contracting partner for their power and heat customers, they operate a biomass cogeneration plant in the city of Hosenfeld. The ORC plant has an electrical output of 1.3 MW and also supplies the adjacent pellet plant with CO₂ neutral process heat to dry sawdust and other raw material for the pellet production.

Due to the seasonally fluctuating wood fuel properties, the plant showed a fluctuating heat and electricity production. SWD have looked for a solution to improve both transparency of supplied fuel as well as an online transfer of the fuel parameters to the boiler control system and decided for APOS ProcessOPT BC.

The measured data for water content, heating value and ash content are continuously visualized, stored in a database and passed to the boiler control system. The control system can now react pro-actively to fuel changes coming by changing fuel feed and/or under grate wind. The communication between the boiler control system and ReceivingOPT BC has been set up easily and reliably via an OPC interface by APOS and the boiler manufacturer Kohlbach KCO.

In addition to boiler control SWD uses ProcessOPT BC for fuel monitoring and complete documentation of the used fuels, their calorific values and qualities. Via remote access, the plant management of Stadtwerke Düsseldorf can always monitor the fuel quality used from their offices and check the fuel quality regarding contract compliance.



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APOS spectrometer unit in Hosenfeld plant



„Finally, we have an exact overview over the fuels that we use and can automatically operate the boiler optimally using the values. The measurement accuracy of the system was key for us to decide pro APOS. The accuracy was fully achieved in the acceptance test.”

-Dipl.-Ing. Uwe Schließer-