

Reference - power plants

- **Branch:** power plants
- **Customer:** HVC Alkmaar Niederlande
- **End customer:** HVC Alkmaar Niederlande
- **Type of plant:** BEC biomass CHP
- **Project site:** Alkmaar, Netherlands
- **Project duration:** April 2007 - 2008

▪ Project description:

Scope of services:

Hardware engineering, programming, CAD/CAE documentation with ELCAD,

manufacture, erection, cold and hot commissioning, trial operation and

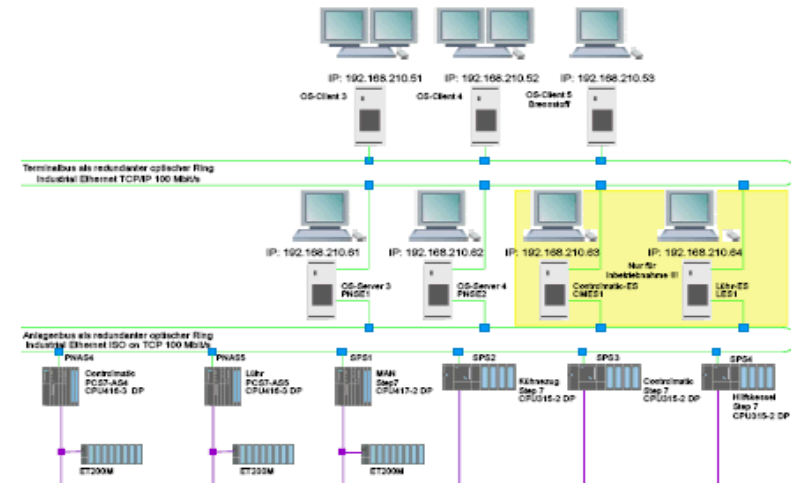
operator training

Scope of supplies:

- Process control system PCS7

Quantities:

- approx. 30 graphic process images
- approx. 1,500 hardware signals
- in total approx. 3,000 process variables



▪ Technical highlights:

- PCS7 V6.1 and PS library (Siemens)
- Opt. electrical terminal/system bus Industrial Ethernet 100Mbit/s
- 2 redundant servers, 3 operator stations each with 2 20" TFT monitors,
- Central control AS S7-416 for water-steam system
Reducing stations, fuel, air capacitor, cooling tower
- Profibus DP with ET200M (pulling and plugging with running systems, component diagnosis)
- Connection of black box controls (S7-300/400) via Industrial Ethernet
for steam turbine generator set and flue gas purification system