



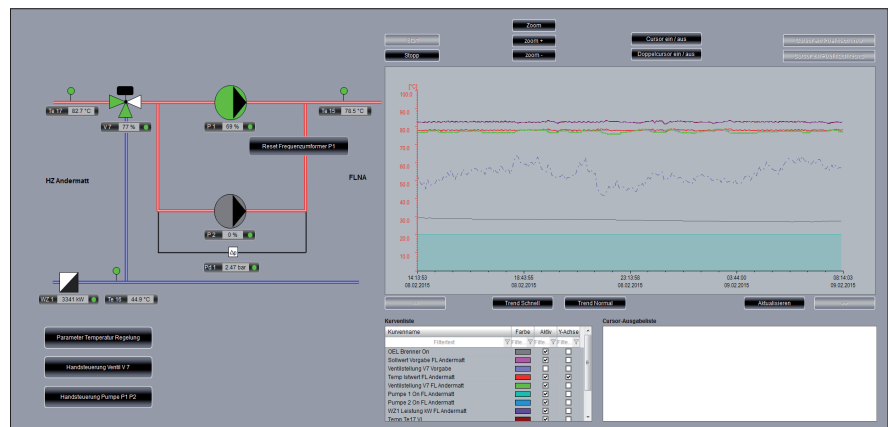
heizwerk gotthard ag heats Andermatt ecologically

Clean energy distributed in a decentralized manner with zenon

Remote heating is a great thing – for consumers. A project becomes challenging when ecology and economics are supposed to interact optimally. Planning such projects is a main competence of oeko energie ag. For this remote heating project in Andermatt, they brought Automation Partner AG on board as an integrator. The result: Maximum effectiveness with minimum energy consumption.

The booming village of Andermatt in Switzerland presented oeko energie ag, a company of Zraggen Holding AG, with an interesting challenge: Over 200 new consumers, including the newly-constructed 5-star Hotel “The Chedi”, were to be supplied ecologically and safely with remote heating.

oeko energie ag is regarded as a pioneer of the energy revolution. Therefore, heating plants that primarily use local, renewable resources such as wood, geothermal energy and waste heat are the main focus of their solutions. It plans and develops heating plants and heating associations that provide ecologically-produced heat to end consumers. The equipment is operated by the sister companies of oeko energie ag, heizwerk gotthard ag and heizwerk uri ag.



The parallel display of general functions and detailed logging of parts of equipment in a screen makes it possible to recognize connections easily and quickly.

SAFE NETWORKING, HIGH LEVEL OF AVAILABILITY

For Andermatt, the young company from Uri developed a wood chip plant with 7.5 MW. The energy must be transferred over a distance of 3.5 kilometers using over 40 bar of pressure. In doing so, an altitude difference of 400 meters must also be overcome. The experienced integrator, Automation Partner AG, was commissioned with the engineering. The objective was safe networking of the consuming components and effective management of heat generation with the maximum degree of effectiveness and minimum energy expenditure. The optimization of consumption also had to be ensured by the system. This should be guaranteed by stable and reliable data recording for subsequent correct billing.

Elger Gledhill, zenon Sales Manager at SATOMEK AG: “Above all oeko energie ag expected high availability and ergonomic handling as well as quick diagnosis by the operator. A particularly important challenge for us was that the WAGO control units had to be addressed with CoDeSys directly. This means that we could not use any drivers from third-party manufacturers, such as OPC. It was thus clear that, for the HMI/SCADA, only a system that already had the corresponding drivers would come into question.”

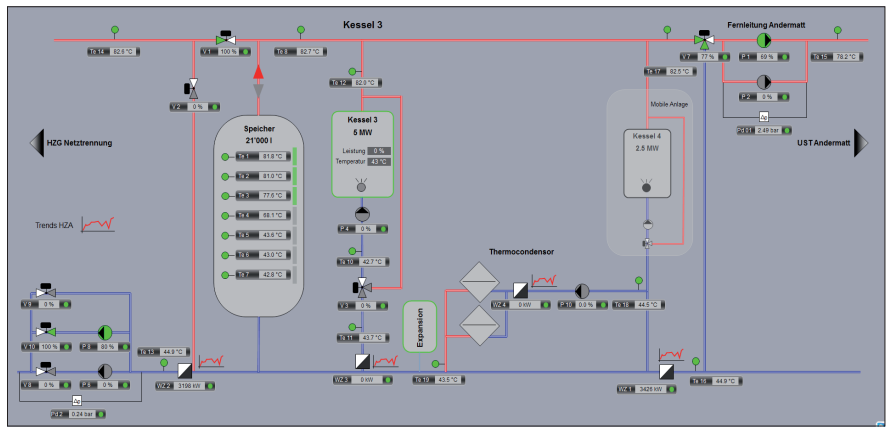
DECENTRALIZED AND DIRECT

Integrator Automation Partner AG decided to use the zenon software from COPA-DATA for the realization. An important reason: zenon provides native drivers for the CoDeSys ARTI interface and an easily-configurable network. This allows a central requirement to be met without problems or additional work – out of the box.

The consumers are connected to the wood chip plant by means of a decentralized network. To do this, a range of sub-projects was created under an umbrella project. The sub-projects can also be operated among themselves; each project can be both a server and a client. These autonomous projects, which are made safe by means of redundancy, ensure a stable supply; an error in a sub-area remains limited to this. Expensive hardware redundancy of the complete plant also becomes superfluous.

ERGONOMIC OPERATION

Operation was designed to be particularly ergonomic for the operator. All parts of the equipment are shown in a comprehensive equipment model. Alarms can thus be filtered and displayed according to components and sections. Automation Partner has also integrated individual tips for solving errors



Everything at a glance: the most important equipment areas and functions visualized with a clear overview.

with the help of the integrated help system. The operators see not just important alarms in relation to the equipment parts affected, they also receive immediate instructions on how to act with the errors that occur.

All events are of course logged in the Chronological Event List (CEL) in zenon. The comprehensive filter functions can be used to display and analyze all events and user actions that occur.

For the administration and billing of the energy consumption of the individual customers, the amount used is logged and archived. The Report Viewer integrated into zenon provides information and reports on the cumulated consumption at any time.

For Othmar Zraggen, CEO of oeko energie ag, Automation Partner optimally solved the task: “What I particularly value about our new control system is the high level of availability it offers as well as insight into local processes at any time.”

ABOUT AUTOMATION PARTNER AG

Automation Partner AG has over 25 years of experience in network technology for data transfer and automation projects for remote heating, industrial equipment and building services. It supports complex projects from planning, through design, to implementation and ensures competent support in ongoing operation. Further information: www.automation-partner.ch.

ABOUT SATOMECH AG

SATOMECH AG is a commercial company with dealers for automation systems. The zenon distributor, based in Cham, supports its customers in Switzerland and Liechtenstein with highly-

qualified support, consulting, instruction, training and a comprehensive warehouse in Switzerland. Control systems, visualization, HMI, IPC and network technology are some of the areas of expertise of the Swiss company with 15 employees. SATOMECH AG was founded in 1976 and has been privately owned by the Studhalter family since 2005. Further information: www.satomech.ch.

AN OVERVIEW OF HEIZWERK GOTTHARD AG AND ZENON:

- ▶ 7 zenon Supervisor Runtime licenses
- ▶ WAGO control units with CoDeSys
- ▶ Native zenon drivers for CoDeSys ARTI interface
- ▶ Industry PCs and classic desktop PCs with 23" monitors
- ▶ 10 km of fiber-optic cable
- ▶ Decentralized networking
- ▶ Equipment modeling with comprehensive filter possibilities
- ▶ Chronological Event List
- ▶ Individual help text in the event of errors
- ▶ Reporting with zenon Report Viewer
- ▶ No redundant networking of the local systems necessary thanks to the autonomy of the local systems