

# The smart way to recycle energy

The city of Zurich earmarked the Hagenholz waste incineration plant site for the construction of a certified logistics building boasting low energy consumption values. Energy efficiency plays an important role within the entire waste disposal facility and also had a hand in determining the most suitable building automation solution.



Heat and electricity is produced from refuse around the clock at the Hagenholz waste incineration plant. The administration staff now also work in a new logistics building on the same site. In line with its energy and environmental targets, the city of Zurich is deeply committed to higher energy efficiency and therefore designed the building to meet the stringent Minergie P-Eco standard.

The client required a building management solution clearly separating the control and regulation of all systems. Operations also had to be automated and monitored at a higher level. SAUTER was commissioned with planning and implementing the HVACS installations and ensuring that as much energy as possible is recycled.

## Automation at heart

The spacious logistics building houses a parking area for waste collection vehicles, cloakrooms, a computer centre, office spaces, meeting rooms and conference halls. All service systems for heating, cooling and ventilating the building are fully automated. A BACnet-KNX gateway guarantees that data is exchanged reliably between the HVAC components, individual room controls and electrical engineering in the entire system.

The easy-to-use SAUTER novaPro Open system allows HVAC and room parameters to be displayed, monitored and adjusted at management level. Meteorological data is also integrated. All systems

throughout the site operate efficiently, thanks to the SAUTER EY-modulo 5 automation stations and the predecessor system, SAUTER EY3600. Through a particularly innovative feature, waste heat from the computer centre located on-site is used as an energy source.

### Feeling comfortable all round

Good ventilation throughout the office is essential for staff welfare and comfort. EnOcean wireless technology integrates CO<sub>2</sub> and room temperature sensors into the SAUTER system. On detecting an increased number of people in a room, the system immediately provides that area with fresh air. Using data from the temperature sensors and setpoint adjusters, heated and chilled ceilings regulate the room to just the right temperature. Meanwhile, dew point monitors prevent condensation from forming on the chilled sail.

Compact SAUTER 6-way ball valves regulate the flow rate in the ceilings. Presence detectors fitted throughout the building ensures perfect lighting for staff at their desks or in meeting rooms. This means that lighting and sunshading are always adjusted to suit the current conditions.

### Keeping individual preferences in mind

Staff can use the SAUTER room operating units to adjust the room climate as required. If, however, they need to dim the lights or open the blinds further, for example, the system parameters can be temporarily overridden.

All systems in the Hagenholz logistics building are monitored and controlled in an integral manner, meaning that the Minergie P-Eco new build is operated with energy efficiency at heart. The SAUTER intelligent automation solution is economical and features clever energy recycling. This helps to conserve valuable resources and enables the city of Zurich to achieve its sustainability goals.



### Minergie standard

Minergie is a Swiss building standard and quality seal for new and refurbished buildings of all categories. In this standard, the construction quality of the building is graded by its energy consumption. The energy demand for each square metre of heated living space is used as the measure for this assessment. At the same time, it is important that people using the building feel comfortable. The Minergie P standard identifies and classifies buildings that aim to be even more energy-efficient (known as nearly zero-energy buildings). Eco stands for a sound and ecological design.

[www.minergie.ch](http://www.minergie.ch)