

Case Study

# AXPO AG

Baden, Switzerland



Branch

Energy production, trading,  
transmission, distribution  
and end customer services

Project

Renewal of the energy and  
grid control center



## Client

Axpo AG is the leading producer of electricity in Switzerland. The virtually CO<sub>2</sub>-free electricity is produced using nuclear, hydroelectric and new renewable energy sources. Annual sales amount to 24,000 million kWh. Together with their partners, Axpo has the most extensive grid infrastructure in Switzerland. Axpo is also actively engaged in the trading of electricity on the international markets.

The continuous flow of electricity between power plants and consumers demands a near perfect management of the mains and grid power distribution network. Grid control constantly fine-tunes the balance between production and consumption. Unforeseen fluctuations require rapid and efficient responses. And when network elements fail due to any reason, they must be repaired and reconnected within seconds.



Neue Energie- und Netzleitstelle  
im Einsatz

## Challenge

WEY Technology was challenged to equip the new Energy and Network Control Center with enhanced infrastructure and state-of-the-art workplaces for the network operators. The goal was to simplify access to all information sources and support the efficient evolution of workflow processes for the operators. The central energy and grid control centre is also located at the headquarters in Baden. It fulfils a wide range of tasks in 24/7 operation. The most important are:

### Grid control

The grid control ensures the balance between power consumption and generation. Short-term, unforeseen fluctuations in consumption or power plant outages require rapid, efficient action.

### Network operation management

The continuous flow of electricity between power plants and consumers requires a well-functioning grid. This means that network elements that fail due to a fault must be reconnected as soon as possible or their defect must be rectified.



## Solution

In the course of the extended tasks and work processes, the requirements for the entire infrastructure of the control room of the energy and network control centre have changed considerably. The following situation occurs after the end of the project:

### Only one keyboard

Each controller can access multiple PCs and big screen monitors with just one keyboard.

### Remote PCs for a better climate in the control center

PCs were relocated to a computer room to reduce heat and noise radiation at the workplace. Structured cabling and the WEYTEC WS-Remote transmit the signal between the system room and the workstations. Variation in signal strength due to normal transmission over twisted pair cables is automatically compensated for using the WEYTEC system.

### Allocation System

One Allocation Switch screen per workplace enables the operators' access to manifold commonly used application platforms. Shared sources such as a document visualizer, a TV and a large screen display of the control PC are all available on the operators' monitors or on the huge video wall.

### Video wall

Axpo's diverse security and control systems have something in common: all data converges in the command area. The information must be presented and interpreted quickly, clearly and effectively. For this project, WEYTEC deployed 16 rear-projection cubes from eyevis. Due to their flexibility and reliability, the projection cubes cover most requirements.

## Future benefits

### Expansion is possible anytime

The modular system structure from WEYTEC allows for easy and cost effective user-specific expansion in the future. This protects Axpo's current investments and results in lower equipment costs tomorrow.

## Quotation

According to Axpo Head of Systems and Applications, Peter Waldegger, "The project was distinguished by its complexity and multifaceted requirements. Thanks to careful planning and the dedication of all companies involved, the realization of the project was successful despite a very tight time frame."