



AZIENDA ELETTRICA TICINESE

THE CUSTOMER

The energy utility company Azienda Elettrica Ticinese (AET) operates power plants and electricity grids in the Canton of Ticino. It manages more than a third of the hydropower generated in the canton. It also operates several photovoltaic systems and a wind farm, either independently or in partnership. With its own regional medium-voltage and high-voltage grid, the company distributes electrical power and supplies municipal electricity providers throughout the canton.

THE CHALLENGE

AET's power plants and transport networks are equipped with management, process control, and visualization systems. Until recently, the control center at the company headquarters in Monte Carasso ran SICAM® 230 software. The solution worked and users were content with it. However, the software was discontinued by its original vendor. Because the vendor no longer provides technical support for the system, it was no longer possible to ensure that it met the latest security standards.

THE SOLUTION

Because the zenon software platform from COPA-DATA forms the core of SICAM® 230, it made sense to switch to the original product. The power plants and the substations were already equipped with the versatile zenon software platform for management and

process control systems. AET had already achieved a high degree of automation, ensuring excellent efficiency and resilience. Thanks to the know-how of the engineers familiar with the SICAM® 230 engineering environment, AET was able to easily migrate all management, process control, and visualization systems to zenon.

THE TECHNOLOGY

zenon is the control system for the remote terminal units (RTUs) via multiple drivers for power transmission, the turbine and voltage regulators in the power plants, and the safety equipment in the substations. A bidirectional connection to the existing SQL database was implemented for data exchange within the company. The experts in COPA-DATA Professional Services helped to upgrade the control center screens to the latest standards.

THE BENEFITS

After migrating all control systems to zenon, AET now runs an open, scalable system that meets IEC 62443 security standards. It delivers state-of-the-art ergonomics and a high level of operating reliability. The solution is fully supported by COPA-DATA, including important drivers, and benefits from regular functional and security updates. The integration of the existing process data, alarms, and Sequence of Events log provides a comprehensive chain of information. A redundant second

control center was set up to enable continued operation with full functionality should problems arise in the control center. This further improves the resilience of AET power supply systems.

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