Policlinico Tor Vergata

Building Energy Management System

THE CHALLENGE

Consumption efficiency by 30% in 3 years.

THE PROJECT

The installed system guarantees, in addition to a **high economic saving** thanks to the reduction of consumption, the possibility of both **increasing the maintenance performance on mechanical systems**, checking the status of the equipment in real time, and having **an efficient management of environmental comfort** through the punctual control of all technological systems used for energy production, distribution and monitoring of environmental conditions.

ACTIVITIES

- **Intelligent building management -** BEMS monitoring and supervision.
- **Heating and air conditioning systems automation.**
- **Remote control of the plants.**
- **Detection, historization and online storage** of the value trends for performance and efficiency evaluations.

PARTNER

CPL CONCORDIA Group
SINCE 1899

Founded in 1899, CPL CONCORDIA is one of the most important and long-lived Italian cooperatives in the Energy and Services sector. Today, CPL's broad offering includes engineering, construction and services for Energy, Gas, Cogeneration, ICT and water service sectors.

CLIENT

PTV POLICLINICO TOR VERGATA

The Tor Vergata Polyclinic, located in Rome, is an imposing hospital complex, which covers an area of approximately 140,000 square meters and is composed of a central body of horizontal 4 levels and two towers of 11 levels.

The building hosts 1,700 employees and thousands of patients and visitors every day.

Policlinico Tor Vergata - BEMS

THE SOLUTION

Installation and implemntation of:

- Remote control points: over 10.000
- Jace 8000 controllers: over 50
- I/O modules: over 300

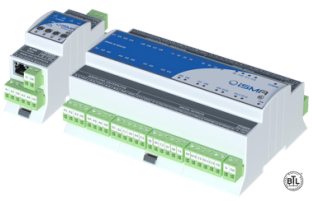
Managed and monitored plants

- **refrigeration plant**;
- hot water and overheated water **central heating**;
- **cogeneration** plant (work in progress);
- control of **over 120 air-handling units** in hospital and common areas, day surgeries, operating rooms, laboratories and more;
- control of all distribution **substations of heating, cooling, steam, hot water and sanitary water**;
- **room conditioning** by managing terminal units such as post-heating;
- room **temperature and humidity** monitoring;
- metering of **thermal and cooling energy, hot water, steam**;
- monitoring of **electrical energy consumption** of cabins and refrigeration units;
- **data integration** with third-party systems through standard communication protocols;
- **data export** in SOAP protocol from BEMS system to other AI systems or Information Systems.

PRODUCTS

TRIDIUM

niagara framework®



iSMA
Intelligent Solution Managing Automation

More than 10.000 control points implemented

Over 50 controllers web-based smart installed

THE RESULTS

Adjustment of the energy production and distribution system to demand **by measuring, monitoring, diagnosing and controlling** in order to obtain the expected levels of energy performance and savings according to certain environmental conditions.

Continuous data analysis of energy and plant engineering systems by using automation and control systems.

THE ADVANTAGES

Energy savings.

Adjustments to the needs of the system, to optimize operation and minimize costs (savings of up to 50%).

Management savings.

Simplification in staff training and interchangeability of roles thanks to a single supervision system.

Maintenance savings.

Remote control speeds up and reduces the interventions of qualified personnel on the system.

Safety an reliability improvement:

faults can be detected promptly.

Plant management simplification

in the adjustment of the operating parameters, time programming of switching on and off, circuit regulation setpoint.