

Smart District Heating

City of Cuneo

THE PROJECT

The project involves the construction of a cogeneration plant of electrical and thermal energy to supply the AGC glass manufacturing plant with the possibility of recovering and reusing heat for the district heating of the city of Cuneo.

The approximately 45 km of excavations for pipe installation have been used for drawing up an optic fiber data network. The network allows the interconnection of all the distribution substations and the provision of other services.

- Project inauguration: 18 October 2018
- Investment: approx. € 50 million in approx 3 years
- District heating network length: 45 km
- Users: about 400 users (public and private)
- Expected energy production: > 170 GWh/year



THE CHALLENGE

- Monitor and control in an optimized way the 500 thermal substations.
- Provide a real-time data analysis to detect any anomalies and failures.



PARTNER



SINERGIE, based in Alba (Cuneo), deals with systems integration since 1993. Distributes products, technologies, services and solutions to make life more protected, safer, more productive and more efficient.

CLIENT



WEDGE POWER S.p.A. is the company owned by the group High Power, leader in district heating systems and cogeneration, and AGC Flat Glass Italia, the Italian division of AGC Glass, world leader in glass production, for the realization of the district heating project of the city of Cuneo.

THE SOLUTION

In each substation a **smart kit** has been installed, as follows:

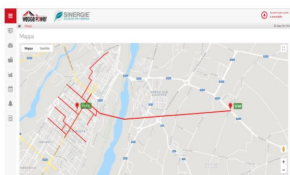
- 1 x Tridium JACE8000 controller
- 1 x iSMA MIX-18-IP I/O module
- 1 x Modbus calorie counter Kamstrup Multical 403

The subcentral management logic exploits the Tridium Analytics framework to highlight consumption anomalies and generate alarms (fault detection).

The **EasyLink supervisor** allows the optimized monitoring and control of the substations.

- Use of tags on plants for data aggregation and analysis.
- Advanced HTML5 graphics configurable through a powerful chart builder.
- Customizable reports and dashboards for each user.
- Support for geolocation of sites.
- Creating custom data maps.

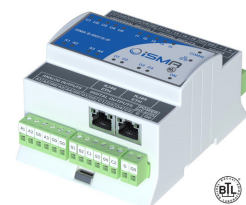
OUR PRODUCTS



easylink



TRIDIUM



iSMA
DISTRIBUTOR

"The plant will pump incessantly hot water circulating in the network, it can be drawn by users, really like a heart

A powerful heart, a beating heart that will feed the multitude of buildings that will want to connect "

www.wedgepower.it

THE RESULTS

For those who buy energy

- Energy price savings.
- Reduction in cooling consumption of glass production plants.

For users of district heating

- Heat supply savings.
- Zero risk of poisoning, gas leaks, explosions, noise.
- High reliability and 24-hour remote control.
- Free connection, no charge of ordinary and extra-ordinary maintenance.

For the environment

- Recovery of approx. 50 GWh/year of energy.
- Emission reduction:
 - 50% less Nox locally (ca.10 ton).
 - 36% less of primary energy to produce the same quality of heat with traditional power plants.
 - 25 tons/year less of carbon dioxide emissions globally.
 - 12 tons/year less of SO2 emissions (sulfur dioxide) locally.