

RENEWABLE HEATING

A DISTRICT ENERGY
NETWORK INSTALLATION

Amiens
energies



The Amiens system draws 23% of its heat from heat pumps and 44% from biomass. It delivers 268 GWh of heat annually and provides an estimated Carbon Footprint savings of 41,100 tons annually.

“We’re planning to extend the network in 2025 and the increase will be easy to implement with Armstrong.”

Mathieu DUPAYS
ENGIE

Amiens Case Study

The Intelligent Fluid Management System (iFMS) integrates superior pumping and control technology into a single packaged solution. iFMS units are delivered to site as one complete system for easy installation and commissioning plus superior energy performance.

Background

Amiens is a city of 135,000 inhabitants located 120 km north of Paris, in the region of Hauts-de-France. In addition to a national legislative and incentive framework, the Hauts-de-France region, has initiated a ‘Third Industrial Revolution’ masterplan, one of the pillars of which is energy transition. The goal is to use renewable energy sources to meet 100% of the city’s energy needs by the year 2050.

As district heating is a key part of the energy transition strategy, the city created a public and private joint venture dedicated to the development of a district heating network. This new legal form allows the community to have a voice on topics related to the development of the network and the levels of service delivered.

The joint venture, called Amiens Energies is the first district heating installation in France to draw from a combination of five separate sources of local renewable energy. Much of the city is now heated through a 75km network of piping that serves more than 19000 apartments and over 90% of commercial buildings.

Each substation or delivery station is made up of one or more heat exchangers, which transfer heat from the network external to the building to the internal network of a building. It is in the delivery station that the metering of heat delivery, using thermal energy meters, takes place. This allows the network to invoice individual buildings based on actual heat usage.

The network operates two biomass plants 8mW and 4mW respectively. Two other sources are a wastewater heat recovery plant, six ammonia heat pumps and a thermal storage facility. During the cold season, supplementary heat is supplied by three 11mW gas boilers at the main plant.

Armstrong supplied 70 Design Envelope pumps, and multiple Intelligent Fluid Management System (iFMS) units. In addition, Amiens Energies elected to subscribe to the Pump Manager service. This allows facility and network managers to track pump operation and performance in real time. The district heating system draws 23% of its heat from heat pumps and 44% from biomass. It delivers 268 GWh of heat annually and provides an estimated Carbon Footprint savings of 41,100 tons annually.

Tech-info

- 70 pumps
- iFMS Packaged Systems
- Pump Manager

