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# Energy and cost savings thanks to advanced HVAC controls

Émile Blanchet School, Dampmart/France

Émile Blanchet School is a primary school in Dampmart, a small town near Paris. The school's heating plant was upgraded a few years ago. To lower energy costs, town authorities now decided to retrofit the plant's control system.

Émile Blanchet School is accommodated in an old building and operates as a primary school.

Not many people live in Dampmart. Town authorities decided to look for ways aimed at reducing costs to prevent budget cuts. Since money was tight, authorities tried to find solutions that would offer considerable savings without having to make major investments.

After examining a number of options, the decision was made to optimize the school building's energy consumption.

A major part of the school's HVAC system was fairly old and not in good condition. Only the heating boilers were replaced a few years ago. Now, thanks to a number of major changes to the school's HVAC system, dramatic energy and thus cost savings were achieved.

Answers for infrastructure.



### Émile Blanchet School, Dampmart

The former plant was only able to provide heating control depending on the outside temperature. No time schedules were available. When selecting the new control system, great importance was attached to time switch functions and straightforward, location-independent operation.

#### Lower energy consumption thanks to time schedules

The school's HVAC plant was equipped with Synco™ 700 controllers from Siemens. They offer 24-hour, 7-day, and 365-day time schedules – a very important feature for schools with greatly varying room occupancy. Also, the time schedules now in use are extremely easy to handle. Even the janitor can effortlessly make settings or match programs, especially since the menus presented by the Synco devices are in the national language.

#### Better control thanks to temperature sensors in the classrooms

The new Synco controllers collect the temperatures acquired by a number of sensors in the classrooms. This way,

the system is able to control the heating plant depending on the current room temperatures. This affords enhanced temperature control and ensures that excessive heating will be prevented.

#### Convenient monitoring from any location

A Web server was installed to offer location-independent operation of the HVAC system. Hence, the plant can be controlled and monitored any time from any computer in the town hall, for instance. This means that to make changes to the time schedules, or to readjust setpoints, it is no longer necessary to do this on site, thus saving time and costs.

#### Saving energy and costs

Due to the new Synco 700 control system and other upgrading measures, energy savings amounted to 80,000 kWh in the first year, representing CO<sub>2</sub> emission reductions of 17 tons.

Thanks to the energy cost reduction, the payback period for the products supplied by Siemens was no more than six months.

### Highlights

- Time schedules with 24-hour, 7-day, and 365-day settings for efficient HVAC control
- Convenient, menu-driven operation in the national language
- Energy efficiency thanks to time schedules and better room temperature control
- Location-independent operation and monitoring of the plant for more flexibility and cost efficiency
- Reduction of CO<sub>2</sub> emissions
- Short payback period