

## ENERinTOWN Case Study

### Installation of a centralised system for monitoring and control of heat in schools and kindergartens

**Client** Town of Veliko Tarnovo, Bulgaria

**Overall Objective**

In Bulgaria and in other CEE countries building energy management has, at present time, been applied to a very small extent while the estimates show potential savings of about 15 % of present energy costs from application of energy management systems in buildings.



The aim of this demonstration project was to show the benefits of energy management in public/municipal buildings as an option for energy savings and thus reduction of municipal energy costs in Bulgaria. The objectives were the installation of a Centralised System for Monitoring and Control of Heat in 13 Schools and Kindergartens in the Town of Veliko Tarnovo.

**Technology**

The system consists of 13 local systems for automatic control and information collection supplied to a central dispatching station comprising of a PC with the respective software.

A system for automatic control of feed water to the inside heating installation has been mounted in each substation. The system is based on a programmable microprocessor control device, sensors for respective temperature measuring and regulating motor-valve mounted on the internal heating installation (IHI) loop. The system performs automatic control, the data collection and the communication with the central PC is done by additional communication controller and a modem.

**Results**

The total project costs amount to 31 955 Euro, 100 % funded by EU PHARE Programme.

Heat Savings	~117 MW
Savings	21, 8 %
Heavy fuel oil savings	121 T/year
Price of heavy fuel oil	101 Euro/ton
Heavy fuel oil cost savings	12.234 Euro/year
Investment	31.955 Euros
Pay-back period	2, 61 years

**Assistance provided**

Regional Energy Centre in Lovetch, Bulgaria

**Contact**

Sofia Energy Centre  
 Violetta Groseva  
 51, James Boucher Blvd.  
 1407 Sofia, Bulgaria  
 Phone: (+359 2) 962 84 43  
 Fax: (+359 2) 962 84 47  
 E-mail: [ecencentre@enpro.bg](mailto:ecencentre@enpro.bg)  
 Web Site: [www.sec.bg](http://www.sec.bg)